OPERATOR

Please welcome to the stage, Vice President of Investor Relations, Michael Lapides.

Michael Lapides GE Vernova - VP of IR

Good morning, and welcome to GE Vernova's Investor Day. Full house. Excited to have you here in-person and for those of you who are online.

Before we start, a reminder that materials, including our non-GAAP reconciliations are posted on our website. Note some of the statements we make today are forward-looking and based on our best view of our businesses as we see them today. And as described in SEC filings and on our website, those elements can change, and we are not obligated to update them.

Great agenda for you today. Presentations from Scott, Ken, all of our business unit leaders plus 2 Q&A sessions and a panel on innovation and growth. We'll then conclude the day with a casual lunch with members of our executive team and a host of other senior executives within GE Vernova. If you haven't already, please stop and see our technology showcase. During the break, or at lunch or on the way out, the subject matter experts will still be attending those booths. They are happy to answer the questions about our technology.

[First of all, please be aware of all exits in the room and I'll point to the back and over here to the side. Our team is here in force. If you have any safety-related questions, please ask. And in case of emergency, please use one of these exits head down the stairs towards Fifth Avenue.] (added by company after the call)
Safety. Safety is paramount here at GE Vernova, and we begin every meeting with a safety moment. And as such, I'll now turn it over to Rob Cummings, GE Vernova's Global Environmental, Health and Safety Leader.

Rob Cummings  
GE Vernova - Global Environmental, Health and Safety Leader

Thank you, Michael. Good morning. Great to see you all today. When it comes safety, culture is everything. However, for a company like ours, culture can be a challenge. People have different backgrounds. People have different opinions and unfortunately, they don't always agree. Our solution, we defined a single, uncompromised culture across all our operations. So, we live a safety culture that is enabled by innovation, utilizing artificial intelligence and data analytics to build predictive models in the hopes that one day, we can forecast the next big event. We live a safety culture that is supported by technology, using smart tools, wearable devices, and digitization to look after our people during high-risk activities. We live a safety culture that is driven by science, using science-based programs to focus more on systems as barriers rather than people. Unfortunately, people are unreliable. People make mistakes. Systems are robust, and they don't make mistakes.

Finally, we live a safety culture that delivers results and 90% reduction in severe injuries over the last 5 years, a 45% reduction in our injury and illness rate over the last 5 years. And all this in line with our vision to be fatality-free. Yes, fatality free across all our operations, all our businesses and with all our business partners. We're making progress every day to live a safety culture that protects our people, so they can bring the energy to change the world.

Thank you, and enjoy your day.

Operator

Please welcome to the stage GE Chairman and CEO, and GE Aerospace CEO, Larry Culp.

H. Lawrence Culp  
General Electric Company - Chairman & CEO

Good morning. Good morning. Okay, we got a full crowd here. We really appreciate you taking time to be with us today. Welcome to GE Vernova's Investor Day. We couldn't be more excited about what the team is going to share with you this morning. This is a day, frankly, that has been in the making for the better part of 2.5 years.

If you go back when we announced the 2-step spin to create 3 independent, investment-grade industry leaders. We had this day very much in mind. You'll recall when we made that announcement, we talked a lot about the benefits of focus, one of our key leadership behaviors as well as the benefits of alignment. In everything that we have seen at HealthCare, at Aerospace and at Vernova, since then, I think has reinforced the premise of what we're doing and what we're about to do. It's really hard to believe that as I stand here, we're less than a month away from the final step. And in turn, the day, April 2, when Vernova will be a stand-alone public company. Rest assured, they are ready.

If you go back just a few years, in many respects, the transformation of GE started at Vernova. At Gas Power, specifically. And I remember those early days, I'm sure many of the team does as well. I remember them fondly because that's really where we began to implement lean and where we began to deploy a more decentralized operating model in order to drive that focus, I referenced a moment ago and in turn drive better results.

And that was a time when some were skeptical about what we were able -- or would be able to do with that business. But over time, I think we have proven the benefits of lean and decentralization not only at Gas Power, but at Power and across Vernova and the rest of GE. And I just -- I couldn't be happier with the way the team has delivered in that regard. And I think through the course of the morning's presentations, you'll see ample examples not only with respect to what we've done in that regard, but what all that positions us to do going forward.

In the course of that Gas Power work, I had a chance to meet Scott Strazik, our CEO. Scott was one of the first operating leaders that I met, and I'd like to think I immediately knew this was somebody who had tremendous potential. We gave Scott the opportunity to run Gas Power at that time and then the rest of the Power segment and more recently, in picking up Renewables, the entirety of the Vernova portfolio. At every turn, Scott has proven to be an outstanding leader strategically, operationally, financially, and organizationally. I think
this business is in excellent hands with Scott at the helm and as a future shareholder, I’m really excited about what Scott and the team are going to do.

And it isn’t just about Scott. It really is about Scott and the team, and we’re so excited that so many of the team are with us today. You’ll be able to hear from, when they come to the stage. Others, hopefully during the breaks and at lunch. We really have assembled, I think, an outstanding team made up of GE veterans and folks new to the business, some from elsewhere in the industry, others completely unfamiliar with this space, but they have been learning quickly. And together, they really have come together not only to prepare Vernova to launch, but most importantly, for the successful years that undoubtedly are in front of us.

Speaking of the team, speaking of alignment, one of the other benefits that we were very keen to realize in the spins is the creation of 3 focused Boards chock-full of domain expertise, fit purpose in healthcare, aerospace and in energy. And we were so delighted to bring Steve Angel on to the GE Board. Many of you know Steve from the outstanding run he had at Praxair and then more recently in the merger with Linde, as both CEO and as Chairman. Steve has been an excellent GE Director, and I’m thrilled that he has agreed to serve as the Non-Executive Chair of GE Vernova. He and the rest of the Board that we have recruited for Vernova really are, I think, a special group. They’re excited about what lies ahead. It will be a key part of making sure that we are aligned from the boardroom through the management ranks, throughout the organization and obviously, in turn with you, our shareholders and future shareholders.

So with that, I’m pleased to have the opportunity to introduce to everyone, Steve Angel, our Chairman at GE Vernova, Steve.

Steve F. Angel
GE Vernova - Non-Executive Chair

Well, thank you, Larry. I’m excited to be here. I started my career at GE many moons ago, and I was directly involved in some of the products you’re going to hear about today. As Larry mentioned, I moved over to the industrial gas business some years ago. I was Chairman and CEO of Praxair for 12 years. I led a cross-border merger with my German competitor, Linde AG. We renamed the company, Linde plc. I led the combined company for 3 years and I’ve been Chairman of the Board for the last 2 years. And the last thing I’ll say about Linde is, it is the largest hydrogen producer in the world. We’re no newcomer to hydrogen, we’ve been in the business for decades.

I’ve always been interested in the GE energy portfolio. And if you spend any time out front, you can see why. And I followed their progress over the years. I like the products, I like the technology. I like the evolution of the technology. I like the service capability. And given where we are as a society today with arguably climate change being our #1 issue, I can’t think of another company that’s going to play a more significant role in the energy transition than GE Vernova.

My primary role here today is to introduce the GE Vernova Board of Directors. I won't go through every name. You can see, I think -- you know a lot of these people. It’s a very experienced group, both from a C-suite standpoint and prior Board experience. And based on my interactions to date, I would say it's a highly engaged group. And that's not a given in boardrooms across corporate America. And that's going to serve us well going forward.

You can see that there is considerable domain expertise on this Board, and that was a primary objective as we were building this Board. And some of these people on this page have gotten to know more about the energy business than most of us will ever know. Now we know our role as a Board. Yes, we will practice good governance. Yes, we will effectively discharge our duties as directors of this company, but to a person, we’re here to help GE Vernova succeed and to help the management team succeed. I've had the pleasure of working with Scott and much of his team over the last couple of years. And I would say it's a highly capable group. And they know their businesses cold.

So with that, I'm going to stop and invite our CEO, Scott Strazik, to take the stage. Scott.

Operator

Please welcome to the stage GE Vernova CEO, Scott Strazik.
Scott L. Strazik GE Vernova - CEO

Larry, Steve, thank you for the introduction and for the strong partnership. Everyone, we are thrilled to have you with us here today, both in the room and virtually. This is a big day for us. As Larry said, we've been working towards this day for a while, and we're really looking forward to spending the morning with all of you.

For me, in leading this company going forward, it's hard to project forward to not take a second and reflect on the past. And in my case, I've been with GE since the summer of 1999 started in Plastics in Pittsfield, Mass. and then when I think about launching GE Vernova today, on the other side of Massachusetts in our new corporate headquarters in Cambridge, Mass. Looking at that span of time, there is no better moment than today for us to bring these energy businesses together and launch GE Vernova, a purpose-built company to electrify and decarbonize the world.

Now that's a big statement. There's a lot that's happened in this company, in the world over this period of time. And I want to spend a few minutes on this page at the start to really share with you what we're seeing in the markets, how we're running the business and how those 2 things combined give us so much confidence in our financials going forward and the value that we can create with GE Vernova.

At the start of the markets, just a handful of examples. In the U.S., if we just spend a minute on data centers, artificial intelligence. In the U.S., the load demand from data centers in 2020 was about 2%, the total load demand. Many people project that to be closer to 8% by 2030. Substantial growth, our U.S. customers in my 25 years with the company have not seen this dynamic of load growth, highly driven by things like data centers and artificial intelligence.

Think about our Gas Power business, an incredible business. When I started with the company, there were about 4,000 gas turbines in the installed base. Today, that number is north of 7,000 gas turbines. Why is that so important? Because that installed base is the foundation to an incredible business. When you look at Gas Power, 70% of the business is services, off of that installed base - an installed base that has growing utilization, customers investing into the fleet with upgrades, which is driving a business that's generating north of $2 billion of free cash flow a year with more growth to follow.

Spend a minute on nuclear. There was very little investment in the world in nuclear after Fukushima for the better part of a decade. I sat in a room at COP28 in Dubai a few months ago, saw 22 heads of state committing to tripling the nuclear capacity in the world between now and 2050. We are excited about our small modular reactor and the role it's going to play in electrifying and decarbonizing the world going forward.

Spend a minute on wind. 1999 when I started with the company, wind generated less than 1% of the world's electricity. Today, it's 7%. So there's been growth. When you look at most projections for what the world needs, for the role that wind will play in decarbonizing the system, it needs to be closer to 25%, huge growth opportunity and we need to run the business well. We need to industrialize products at scale. We know how to do that. Wind matters.

Grid, electrification. We're going to spend a lot of time today talking about electrification in grid and the opportunities we see going forward. But over the span of the last 25 years, our future GE Vernova investors are going to look back upon the assets we acquired with Alstom in 2015, and that was not an easy acquisition. But for our future owners, they'll see the assets from that Alstom acquisition as the most valuable parts of the deal. There is real demand surging and real opportunities for us to invest in that business and have a meaningful impact for Vernova in the world.

So we see these market dynamics that are driving a clear trajectory of multi-decade growth. And they're happening at the exact same time, we're running these businesses better. Foundationally, sustainability is where it starts. That is our true north. We're going to talk about that. Continuing to invest in innovation with a lean operating system that allows our teams to prioritize the critical KPIs most important to our customers, while simultaneously finding space and oxygen to invest in long-term breakthroughs. And that's very much the journey we've been on in Gas Power for over 5 years. We're seeing results. We're accelerating that journey with each of our businesses. And when you couple all this together, the markets running these businesses better, it gives us a high degree of confidence in the financials for GE Vernova going forward and our ability to create substantial value for the company from here.
Now, if we shift to the next page and just with the meaningful investments that are coming in the energy transition, I just wanted to take a second and contextualize this relative to other major investment supercycles that have happened in the world. If you just think about, in my lifetime, globalization, in the ‘80s and ‘90s. The Internet and software, 2000s and 2010s, how those trends shaped economies, changed our lives. And then think about the industries that we need to electrify the next 20 years. And as we electrify those, we need to simultaneously decarbonize the power system that becomes the fuel for those industries that today are powered by fossil fuels. This is a meaningful shaping of our lives and economies throughout the world.

If we try to make this real, on this page, and this is important. Left-hand side of the page, electrification, just think about headlines that we all see in the newspaper today, electric vehicles, the gigaton, gigafactories that are getting built and the factory loads associated with it. I talked about data centers and artificial intelligence earlier, but I want to spend another minute on it.

I mean you look at the projections in the new demand needed for data centers, in the U.S. alone, that new demand growth is equivalent to the existing load in many countries in Western Europe today. Pick your country, it may be Sweden, it may be Germany, maybe somewhere in between. And for me, in my time in GE in these energy businesses, the U.S. load growth has been less than 0.5% a year, many things that turns into 2% a year or more going forward.

But this isn't just about the U.S. We can get on a plane together and go to Southeast Asia and look at economies that are industrializing today, requiring real load growth, which is an incredible opportunity for our Gas Power business.

Beyond electrification, decarbonization is critical to our pathway forward. We still have 800 gigawatts of coal running in the world today, and that's excluding China and India. It's going to take $4 trillion of capital to replace that coal. You talked about industries that today are powered by fossil fuels that will electrify and create further opportunity for us to grow the electric power system while decarbonizing it.

Grids today, in the U.S., efficiency losses in the grid are approximately 5%. It's exactly what our Electrification businesses are here to address and solve. So you couple all of this together, it's very clear. The demand for electricity is going to grow by north of 50% between now and 2040. And as that electricity demand grows, the gigawatts needed in the system is going to more than double.

One real message on this page, we play in big markets that are growing. Energy transition market today, $2 trillion, growing to $2.5 trillion to $3 trillion plus. Our addressable market, $265 billion today, growing to at least $435 billion by 2030. So we have real conviction on the opportunities to serve these markets and are excited about it.

This allows me to pivot and shift towards introducing how GE Vernova plays across that incredible market opportunity. And just start with Power because the reality is that's what people first think of when they think of Vernova. They think of our power generation businesses, whether that be gas or wind and when I talk about a $265 billion addressable market, the reality is $190 billion of that today is in the power space. It's $27 billion of our 2023 revenue.

The important message on this page beyond that is we do play across the spectrum, transferring electrons, orchestrating the grid, ultimately converting and storing those electrons at the point of use. That is our Electrification segment. It's our smallest segment today. $6 billion of revenue last year, but we also had $12 billion of orders. This is our fastest-growing segment inside GE Vernova. $75 billion addressable market today, but real opportunities to grow.

And beyond that growth and that opportunity in these businesses, a few companies can play across this whole spectrum. We can and with the customer commitments that they've made to both electrify and decarbonize their system, it uniquely positions GE Vernova to serve that customer base and solve their problems.

More on each of the business segments. Going back to Power. These are great businesses. They have electrified the world for a century. Big installed bases, big services businesses, generating a lot of cash today and will generate more cash tomorrow. We're also decarbonizing these businesses. Look at Gas, and we're confident and excited about what we're doing with hydrogen combustion and
gas. We're excited about carbon capture and where that goes, while nurturing and growing our small modular reactor and nuclear.

Wind matters for the world. We clearly have opportunities and see a clear path to run these businesses better, and you can already see that today on Onshore Wind. We returned to Onshore Wind to profitability. In the second half of last year, Vic will walk through a clear pathway to a substantially more profitable business in 2024, and we're running a very similar playbook with Offshore Wind. For those that have been with me in meetings like this the last few years, I've been very open about the tough economics of our existing Offshore Wind backlog. It's about $4 billion which will meaningfully convert to revenue over the next 2 years. But we have our arms around this business with Offshore. We're working it. We're improving it. You'll see that in the financials in '24 into '25 and we will only add to that backlog with meaningfully better economics and terms than what is in our backlog today.

Electrification. Smallest business, most growth potential, industries are going to electrify. We need to modernize the grid and we'll play a meaningful role in doing it. Incredibly excited about the art of the possible in Electrification.

Now I want to introduce our sustainability framework, and this is important for us. When you think about a world that creates 36 gigatons of man-made carbon and 40% of that being in the power sector, a lot of it coal, as I mentioned earlier, it's right in our strike zone. But on top of that, the other 60% in industries that consume fossil fuel today is going to electrify, and that creates opportunity for us.

So 4 real pillars here. Electrification, top left-hand corner, gigawatts that we add to the system every year. But while we're adding gigawatts of new power, we need to simultaneously be decarbonizing the installed base in totality, and we're going to proactively talk about the carbon intensity of our fleet in totality every single year as it comes down.

As we do that, this is about investing in the communities in which we serve and ensuring they thrive in the top right-hand corner. This is the SG of ESG, safety, diversity, investing in our partners and where we do business in ensuring they thrive as we thrive, reaching our goals up top. And as we do all of this, it comes down to getting better every single year in conserving resources on running our core operations towards our pathway to zero carbon operations with our internal operations by 2030. We're incredibly excited to launch our first GE Vernova Sustainability Report later in the year. And when we do that, we're going to be very actionable, with very explicit measurements across this framework on what we're going to hold ourselves accountable for in running GE Vernova.

Now as you shift from sustainability, it's impossible to not then go to our incredible customer base. This is one of our greatest assets. It's the most humbling part of my role on how we serve our customers on their missions every day. When you look at the stats on this page, our 20 largest customers serve 40% of their respective markets. 9 of our 10 largest customers in both the U.S. and Europe, transact with at least 6 of our GE Vernova businesses. That stickiness, that customer relationship is at the core of our competitive strength. Now we have to nurture and protect that every day, that's top of the list in my role. This is the best part of what we offer with GE Vernova today and tomorrow.

Part of why we built these customer relationships over time is because our customers know we are investing in the future. Spending $1 billion a year in research and development. We have 80 active DOE grants we're working today with the U.S. government. Our CEOs are going to talk through a lot of these innovations on the page, but I just want to hit on a few.

I mentioned nuclear. A lot of dialogue on nuclear today. We're doing. Our first small modular reactor 300-megawatt block of power will shift from the engineering phase to construction with our first project in Canada with Ontario Power Generation next year. We will commission the first 300-megawatt block of power this decade. These are modularized 300-megawatt blocks of power that we have a high degree of confidence we can build the same thing over and over. This first project was a coal plant once in Ontario. We'll build four 300-megawatt blocks of power that replaced what once was a 1.2 gigawatt coal plant and drive this product down the learning curve, both on schedule and cost in a different way than it has been in the past with nuclear.

Carbon capture. If we could all parachute into our Advanced Research Center in Niskayuna, New York right now, we would see a carbon capture plant that is pulling carbon out of the air today. We will demonstrate with that an ability to pull out 10 tons of carbon this year at our Advanced Research Center, and we will shift towards industrializing that product in 2025. Real opportunity for us.
We haven’t talked a lot about GridOS or grid software, yes. But GridOS is foundational to the $1 billion of Electrification Software revenue that we have within Electrification in total. And I’ve got to tell you, if I compare today to 2 years ago and being out at dinner with one of my customer CEOs 2 years ago, it would be hard for that conversation to not primarily focus on gas and wind. And the reality is those are the big CapEx investments that our customer, Board of Directors will opine on. Today, 2 years removed, a lot more of that conversation is on the grid and how we serve and support them with the complexity that they’re managing everyday and we see huge opportunity with GridOS to serve our customer base going forward.

I want to spend a minute on the team. I am incredibly fortunate and proud to have this team leading GE Vernova with me. This is an experienced team. Seven of the 12 leaders are new to GE Vernova since we launched the spin in November ‘21. If you look at the left-hand side with our corporate functions, these are leaders that have 30 years of experience -- over 30 years, leading public companies. Our business leaders in the middle, have decades of experience in their domain, in their industries, and I can’t wait for each of them to come up and share where they’re taking these businesses. And then our enabling functions play horizontally across Vernova to make the company worth more than the individual businesses. This is a global team, an experienced team, and a team that’s going to play a critical role attracting our next level of talent to lead the energy transition forward.

How we run these businesses? I want to spend some time on our lean operating system. It starts with safety, quality, delivery, and cost in that order. If we talk about each, I just want to hit on a few examples with safety. For the last 4 years in these businesses, we’ve been taking potential safety severe events and aggressively problem-solving how we ensure the potential safety events that did not become safety events don’t materialize in the future. You’ve seen our injury and illness rate come down 45% in those 4 years. Actionable progress.

Quality. Foundational to our improvement in Onshore Wind has been a focus on quality. Vic has talked about and will again today on product simplification, 9 nacelle variants to 5. The product simplification has been driving a much higher quality product that’s foundational to a business that returned to profitability in the second half of last year and it’s only going to get better from here.

Delivery. Larry mentioned earlier, lean is farthest along inside GE Vernova and Gas. In our factory in Greenville, South Carolina, we’ve reduced the amount of blade moves around that factory by 3 miles -- 3 miles. The waste we’ve eliminated in the process, accelerating the cycle time, allowing us to serve our customers faster and pull in our cash collections. It’s all the heart of the business that’s been generating more and more cash each of the last 4 years.

Cost. We’re going to run this company being responsible with our owners’ money. You can see that on our 3 largest businesses over the last 4 years, we’ve reduced structural costs by $1.8 billion, and that’s just across Gas, Grid and Onshore Wind. And we’re not done, we see substantial opportunity to continue to drive a more productive business. Ken will talk about that later in the afternoon as a clear opportunity of future margin accretion for us.

Now, these are examples I’d give. At the same time, you’re going to have an opportunity to see some videos today that are parachuting everyone into our CEO Kaizen week that we had in the end of January. And just to contextualize that, we took over 1,000 people inside GE Vernova the last week of January and put them on about 70 teams and when we do these kaizen weeks, we identify problems we can solve in 5 days. In these teams from starting out on a Monday morning to leaving and going home on a Friday afternoon, one very clear objective, cut in the solution. So for the operators and the teams that following Monday, that work has changed. You’ll see a number of those videos.

Now examples are important. But ultimately, what’s more important is that the business results follow. And if we go to the next page, you can see it here. I mentioned Gas Power. I had the privilege of taking on the CEO role at Gas Power in 2019. 2018, this is a business that was bleeding north of $2 billion of cash a year. Turned cash flow positive in 2020. Has generated more cash every year since to the point that now this is a business generating north of $2 billion of positive free cash flow. Foundational to that has been the lean operating system coupled with better underwriting, a selective compass on what business we want to do that together has had a substantial improvement in the financials of Gas Power.

Now for me, what’s so exciting is I see Philippe in Grid, Vic in Wind running a very similar playbook with the operating system of Lean,
foundational to what we do every day but with a very focused, selective approach to what new business we take on with underwriting and selectivity.

Now Gas Power, if I use a baseball analogy and a 9-inning game, Gas Power is probably in the fourth to fifth inning of this lean journey substantial opportunity still ahead. Mavi will frame that up.

Grid, Onshore Wind, Philippe and Vic came into the roles in the middle of ’22. These businesses just turned cash flow positive in 2023. These businesses are somewhere between the second and the third inning of a 9-inning game, there is real opportunity simply running these businesses better and accreting margin on things we control. And that’s exactly what we’re going to do.

Those lean principles clearly drive more cash, but they also accrete margin. And I want to spend a minute on this Page 2. I mean you don’t put a lot of pages together to talk about a $116 billion backlog. This is an incredible asset for us, but it’s not about growth. It’s about profitable growth. That’s exactly what we’re focused on. About 1/3 of this backlog is equipment, 2/3 services. In our equipment backlog, in 2023 alone we accreted margin in that equipment backlog by 6 points. Strength primarily of the underwriting and selectivity in Grid and in Onshore Wind. There’s more to follow here, everyone. And we did that while simultaneously growing our high-margin services backlog.

Now this is important for the long term. But it’s also important for our near-term visibility, I mean, we have 80% of our 2024 revenue secured in the backlog at the start of the year. We project ahead to 2025 and we already have 50% of our revenue for 2025 in backlog today.

That translates to our financials. We start with 2024. No change from what we framed up at earnings in January. This is a company that will generate $34 billion to $35 billion of revenue this year, will be in the high end of mid-single-digit EBITDA margins and generate somewhere between $700 million and $1.1 billion of positive free cash flow.

When we look ahead to 2025, top line growth MSD, low end of high single-digit EBITDA margin with another step-up - substantial step-up in free cash flow from somewhere between $1.2 billion and $1.8 billion of positive free cash flow in 2025.

Now as we project forward from there, we see a clear ability to continue to grow this business through the cycle at mid-single-digits by 2028, 10% EBITDA margins with healthy free cash flow throughout that cycle.

Now that doesn't mean this is success, whether it be myself, this management team, this business has a clear ability in the markets that I framed up, with the opportunities we see, and how we're running these businesses better to do substantially better than this. But this is a solid foundation for us to build upon and grow from here.

Few themes as I hand it off to the teams in a moment to go a level deeper on all of our businesses. We are excited about these markets and the opportunity we have to serve. Our Power businesses are great businesses. Big installed bases, primarily services businesses generating a lot of cash today, that will generate more cash tomorrow for a very long time while we simultaneously decarbonize them with things like hydrogen, carbon capture, small modular reactor.

Wind. Wind matters for the world. 7% of the world's electricity today, the world is going to get to its objectives. It's going to be a lot closer to 25% by 2040. We see clear opportunities to run these businesses better, we are. You see that in the results with Onshore Wind. We're running a very similar play with Offshore Wind. We like our chances. Vic is going to talk about this business becoming profitable in totality in 2025 with real opportunity to follow.

Electrification. These businesses have reached a tipping point of accelerated, profitable growth. We're going to invest in these businesses. The market is telling us too. You see that in our orders relative to our revenue right now. Huge opportunity, both on the physical grid and connecting zero carbon solutions to where the load is needed, but also in grid software, in the brains of the grid, and stabilizing and solving for a much more complicated system that our customers are navigating every day. Huge part of Vernova's future.
All of this is on a foundation, a company with a true north on sustainability, that is going to invest and innovate to win with a lean operating system that allows us to focus on the critical measurements for our customers every day while also finding capacity to invest in the medium and long term on the breakthroughs associated with that. We like how we're positioned with our customers and in these markets, we are uniquely positioned. And we put all this together, we see a clear opportunity to create substantial value through GE Vernova going forward.

So with that, we're going to play one of the first lean videos on power. And then it's my pleasure to introduce Mavi Zingoni to join us on the stage. Thank you.

(presentation)

Operator

Please welcome to the stage CEO of Power, Mavi Zingoni.

Mavi Zingoni GE Vernova - CEO of Power

Scott, thank you. Good morning, everyone. I'm really very excited to be here today. I'm starting my second year leading this Power segment. A segment that consistently drives strong and growing free cash flow.

When you think about the power technologies, think about all those technologies that keeps the lights on today. Those technologies that are reliable, secure and dispatchable and together account approximately for 85% of today's electricity generation. We have a great installed base that we have been building for our customers in the last 100 years, more than 1,700 gigawatts of installed capacity. Only in the Gas business, we have more than 800 gigawatts of installed base there. That's more than double of our closest competitor. But for us, that's not about the past. That's not even about the present. That's about the future, the future that we are building. So let's go there.

When you think about this Power installed base, that's an installed base that generates today, most of Vernova's free cash flow. But we are really convinced that this free cash flow could keep on growing. Mainly driven by 2 main factors. On the one hand, that's is strong backlog, $73 billion backlog, whereas 80% of that are services which gives us a very good visibility of the cash flow to come.

On the other is what our way of working, what we call our power playbook. That includes our commercial strategy being really selective. The underwriting, the discipline that we have in the underwriting, the productivity that we are applying to everything, price to more than offset inflation. And for sure, we are in this continuous improvement journey with lean, the foundation of everything that we do to drive better results in terms of safety, quality, delivery, and cost.

We have demonstrated in the past our ability to grow this cash flow. And we are really convinced that we can continue to do so this year and the years to come.

Think about our largest business in the Power segment. That's the Gas Power business, accounts for 75% of the total revenues of the sector -- of the segment -- excuse me. It has a very strong contractual services backlog, more than $43 billion, where 70% of those contracts, 70% of those contracts have a remaining life larger than 10 years. Not only that, the renewal rate is significantly high. So again, giving us a very good visibility of the free cash flow.

But when you think about this fleet, have been a very resilient fleet. Despite the impacts of COVID or the geopolitical tensions that we are going through and also the gas price volatility, the utilization of these fleets in the last year has been going up low single-digits on average every year. Customers need this gas power. And that's the reason why they keep on investing on it. They invest in upgrades, upgrades to increase output, to improve efficiency, to have better flexibility, to have faster ramp-ups or more efficient turndowns in case that there is a peak in demand and the grid needs to be stabilized.

Also, in these upgrades, they can lower emissions, part of the decarbonization journey. And these continuous investments drive services. Think about all these upgrades as opportunities to continue electrifying and decarbonizing the world. Our customers need this gas power as the demand growth is really accelerating, but also due to the penetration of renewables as the backup power to stabilize the grid. So far,
The gas has proved to be the best technology when it comes to give an answer to the energy transition trilemma. And that's the reason why our customers are investing not only in upgrades in the current installed base, but they are also investing in new units.

If you take a look at the market, 5 years ago, the market for heavy-duty new units was 32 gigawatts. Last year, it was 42 gigawatts. The next year, we think that's going to be above 40 gigawatts -- in the 40 gigawatts area. Again, it's a strong demand, and we are seeing that. We are seeing that demand for our largest and most efficient unit, the H class. When we started to commission the first one 7 years ago up to now, we have more than 100 units running and operating more than 2.3 million hours of experience of operations in here, growing installed base.

But on top of that, this is installed base, this is a unit that is being built to run at very high capacity factors. So you have a growing installed base and high capacity utilization, it drives services. So you could expect the billings for these units, service billings for this unit to reach $1 billion starting next year. And that's, again, something that is giving us excitement on how we are thinking about the future.

Moreover, if you analyze where we are with this H class in comparison to other units in the fleet, like the F class, for instance, we are at a very early stage when it comes to the life cycle. And we know from experience that with the largest installed base, with more experience there, we can drive better results, better outages, shorter outage cycle times for our customers, good value proposition for them, and also productivity for us and also better cost to serve. So altogether, growing markets, high utilization rates, driving more services, but also margin expansion opportunities. Bright future of the H class for us.

I said at the beginning that lean is at the foundation of everything that we do to drive better results in safety, quality, delivery, and cost. Great example of that is that what we call live outage. Think about the live outage like a technology innovation with one goal. The goal is let's reduce the cycle time of the outage for our customers. In those outages with live outage, our customers can reduce the cycle time by 22%. It means they can generate more power and they can sell more power.

With a live outage, our field engineers, crew down there do not use paper work anymore. Everything that they do has a digital support. What makes the work more standard, lean concept behind, makes the work much easier to design and to execute, to implement. And for sure, considering taking into account the safest procedures, our #1 commitment. We'll keep on deploying live outages in different fleets.

We are not only working with lean for our customers, but also internally in our manufacturing capacity. This is a journey you heard from Scott that the Gas Power team started 5 years ago. The results obtained are amazing. Injuries reduced by 6 times. Yes, by 6, but also was reduction in quality escapes in lead times and very good cost savings. You watched the video with Rodolfo Torres, our Gas Power lean leaders. We are not done. We will keep on working on this continuous improvement journey.

I had the privilege to join the teams in Bucharest. I have been the Steam team, and I've been in Budapest with the Gas Power teams and I left the week really excited. When we have the right problem definition, you put the right teams with the right capabilities, the opportunity to be focused there, working as a team, no hierarchies, you could obtain really, really amazing results. I left that week totally convinced with the reinforcement of my belief that lean is how we want to work, and we will continue to work to drive better results.

If we move now from this really strong operational discipline and focus we have to what we are doing in decarbonization and in innovation. We are decarbonizing in different ways, starting with the coal to gas switching. The coal to gas switching, if our customers use our most efficient gas turbine today, the H-class, they can be reducing the emissions by 60%. Already 350 gigawatts of coal were retired in the last decade.

If you take into account only the units that we see last year, our 25 million tons of CO2 that will not go to the atmosphere, only with the units we shipped last year. And this is a technology that is available today and is needed in this energy transition journey.

On top of that, hydrogen, another technology that exists today, not new for us, more than 8.5 million hours of experience and increasing as we speak. And we are committed to have 100% of our portfolio -- 100% hydrogen ready by the end of the decade. More technology is available today.
Carbon Capture. We are very excited with this -- but we are working together with Technip partner in front-end engineering, sign phase for the BP net zero Teesside project, is going to have a Gas Power plant with a carbon capture plant attached to it.

Thanks to our technology, the exhaust gas recirculation you can increase -- we can increase the CO2 concentration on the exhaust gas and in consequence the carbon capture could be more efficient. Very excited about the technology and the role that it can play in decarbonizing gas-powered technologies.

Beyond that, direct air capture with longer term. Yes, our researchers are really excited by the results that they are obtaining the different solvents they are testing, the process, and the material important here. More to be done. We are working right now in the 10 tons with a goal to have the 1 million-ton ready early next decade.

And finally, our Nuclear small modular reactor, where we're investing together with our partner -- 3 customers, 3 different countries, almost $500 million there. Since this is such an opportunity for the world and for us, let me spend a minute here.

Being in COP28 last year, know this -- there's a pledge signed by more than 20 countries and supported by more than 140 countries to triple the current nuclear capacity in the world. The consensus is going to be hard for the world to be net zero by 2050 without nuclear. So it's a huge opportunity. It's going to be a combination, a combination of both large nuclear and small nuclear. We are right now focused on the design of the small modular reactor.

A couple of highlights I want to share with you on this. First, it utilizes an existing design. Second, it works on an already licensed field. So we don't need to go to another process here. So it means, but it's going to be smaller. It's going to be simpler. And in consequence, what we are doing here is trying to lower the risk. It's going to be operated by a reduced staff and the outages are going to be shorter. So think about something that you can replicate, that you can have in modules, so the construction time and the construction cost could be much lower with a lower risk.

There's a lot of interest right now, but we are going to remain focused in a few markets. We are very excited. We have the first commercial contract, Ontario Power Generation - could be making the decision, the final investment decision at the end of this year and have the first unit in operation at the end of the decade with the idea to have 3 more units in the same site, that's the Darlington site in Canada. All in all, a lot of excitement, a lot of work. I know there's a lot of work to be done to translate all this into more orders and more commercial contracts, but this is a huge opportunity for us and we are really, really excited here.

With this, let me go now into the guidance. Guidance for the Power segment as a whole. In revenues, revenues this year are going to grow mid-single-digit driven mainly in Gas Power business, both equipment and services. The EBITDA margin is going to continue its expansion. I was trying to explain through the presentation, what are the drivers for that. Think about an additional 100 basis points here based on productivity, services volumes, and pricing to offset - to more than offset inflation while we make the investments in innovation and decarbonization.

When you think about the margin expansion, I think that this is a journey that will continue beyond 2024, there are opportunities to do more, as we said before.

I'm going to end here in the same way that I started. The Power segment, a very resilient business, high-margin businesses with a strong and growing free cash flow generation to fund the innovation and be a major driver for Vernova.

With this, I want to introduce my colleague, Vic Abate, who is the leader of the Wind segment. Thank you.

(presentation)

Operator

Please welcome to the stage CEO of Wind, Vic Abate.
Good morning. Good morning, everybody. It's absolutely terrific to be here. And I just want to give you an update on our Wind segment where we see significant margin expansion in sight.

And just last year, for those of you that were in the room, I talked about our onshore wind turnaround focus. This year, as we prepared for the GE Vernova spin we've taken our Onshore Wind business, our Offshore Wind business, and our LM blades operation and really integrated them into one team. And we did that to be able to drive and leverage product technology, commercial selectivity and discipline, as well as our lean operations across both Onshore and Offshore, to really be in the best position to drive margin expansion for the foreseeable future.

So if we go to this first slide, as Scott said this morning in his opening, the world needs wind. No matter what model you look at, we see wind entering a multigenerational build-out cycle that represents $5 trillion of investment, that's needed over the next 2 decades. And if you look at the chart on the left, you'll see wind going from 7% of the electricity to the grid today to where 25% of the power generation globally will come from wind and just pause for a second and digest that point.

Think of an energy system where 1 out of 4 electrons comes from wind because this is a different world. And this is why we believe there's a premium to be gained from reliability, quality and uptime because this is high-tech infrastructure that's being deployed at an unprecedented scale. And you heard from my colleague Mavi talk about nuclear fleets, our gas fleets. I mean GE Vernova knows how to scale high-tech infrastructure. So for our Wind segment, how do we make this happen?

One, we believe in workhorse products. These are products that are deployed in fleets of thousands, not project bespoke technologies. Two, you have to lead with quality, in design and in manufacturing, and the life cycle of services. And three, you have to be focused and have lean operations to drive continuous improvement day in and day out.

So with that last year, I had introduced to you the concept and our strategy around workhorse products, which was core to our success so far in turning around the Onshore business. But as I just showed you, we believe it's not just core to us. It's core to the industry's success for wind to become reliable at scale. So what have we done since we talked about the strategy? One, we've reduced our number of product variants. We focused our learnings on our fleet of 55,000 wind turbines, leveraging the 4 billion operating hours of insight and information. And three, we've picked products that win in markets that we care about.

And for example, in the U.S., we believe we provide our customers differentiated value in 80% of the U.S. zip codes. So let's just take a look at the right-hand side, what are the segments? For megawatt-constrained applications, our 3.6 megawatt 154-meter rotor Workhorse is the capacity factor leader, meaning it's the most efficient turbine for megawatt-constrained applications. And this was the turbine of choice by Pattern Energy's SunZia project in New Mexico, which is the largest project in U.S. history.

Now for land-constrained applications, our 6.1-megawatt 158-meter Workhorse is the largest wind turbine manufactured in the U.S. It is the energy output leader. And this year, we will ship over 700 megawatts from our flagship Power facility, Gas Power facility, leaning into my colleague again in Gas Power in Schenectady.

And just a note on that, that lean video at the beginning was the team coming together, really driving the capability to deploy this technology at scale in the U.S., and we made this decision to build this product in Schenectady last May.

So by October, the first unit left the factory. So in 5 months from declaring it to the team to having the capability deployed, is something that only you can do in GE Vernova, leaning into the capabilities we have around the world. And this year, we'll ship over 700 megawatts from that facility.

So listen, our Haliade-X 250-meter rotor workhorse is our next-generation Offshore turbine. This will be deployed and is the industry-leading 250-meter rotor. There's no other turbine out there with a rotor this size, and that really defines for Wind, entitlement, the products capability. It will drive and deliver industry-leading efficiency and output and is built on the proven Haliade-X technology.
And by 2026, we will have a fleet of Offshore machines that will have more than 4.5 million operating hours, more operating experience for these large 14-megawatt machines than any of our competitors. So this is our product lineup, and we believe it positions us well to win.

So now let's talk about quality. To deliver the energy transition, these products need to run day in and day out, which is, as a result, leading with quality is a top priority, and we are seeing real progress as is evident on the left side of this chart. And just availability, which is what we're measuring here is the percentage of time our turbines are available for our customers to dispatch to drive revenue for them. So a very important customer metric.

So the example on the left is our 2.8-megawatt, 127-meter rotor turbine. And for projects that completed their first year of operation in 2021, their first year availability was at 96%. And you can see from projects that completed their first year of operation in 2023, this metric is up 2 points to 98. So by closing the loop, from customer outcomes, upstream into our engineering and manufacturing processes and into our supply chain, we're ensuring our turbines are getting better with every serial number that we ship, the first principle of a workhorse strategy.

Now the right hand side of the chart illustrates how we're raising the bar on product launches. Because each one of our core workhorse products, we have a multi-generational product plan to continue to systematically in a disciplined way, introduce leading capabilities over time. And for example, on the right, if you look to do this design, validation, manufacturing, projects, all areas that we're raising the bar on to ensure product launches have the highest quality.

And one example I wanted to highlight here was in our 3.6-megawatt turbine that we have with Pattern in SunZia. We've developed at our research center up in Niskayuna, an AI-based advanced inspection technology to certify the quality of every blade we produce. And how does it work? So just think about a doctor that analyzes scans to find concerns. We're doing the same thing. We're using autonomous robots that scan the interior surface of a wind turbine blade and they use AI to detect anomalies. In this way, we're certifying the quality of every blade before it leaves a factory and it provides customers a certification document and data that underwrites that the blade has been manufactured to our strict engineering specifications. So with that, I thought I'd cut to a quick video here, which is that our facility in North Dakota to illustrate how this works.

(presentation)

Vic R. Abate
GE Vernova - CEO of Wind
I'm a tech guy by nature, but I just -- how cool is that? I mean, when you actually look at the wind industry and you look at where we have to go. I just see tremendous potential, not only in the products, but how they're made, right, and how they're operated. And so the innovation is limitless as far as I'm concerned. So for the industry to fulfill, it's going to be not only the product positioning, but clearly the manufacturing, and we're all over making that the best.

So with that, let's jump to the next slide here. And last year, we talked a lot about lean, and how we were going to drive structural productivity and transform the Onshore business using lean and just here are some of the results. First, we've reduced layers, effectively bringing our teams closer to our customers. We've simplified and focused our R&D spend with the 3 Workhorse products that we talked about. We're consolidating our footprint to create stronger, more capable communities of practice. And finally, we've repositioned our manufacturing resources closer to strategic markets.

As a result, we've seen, if you look to the right, our fixed cost as a percentage of our revenue have dropped 6 points. And this has reduced our breakeven point of our business to less than 1,000 units a year. So with lean driving improved standard work and moving lines we could flex up our capacity as we see the IRA impact and the queues going up by a factor of 4. As that volume goes up, we can flex our capacity up with minimal investment. With our breakeven point being at 1,000 units a year, we can maintain the commercial selectivity, and we don't have to chase volume to be profitable and drive our margins.

So bringing it all together, this is what our strategy has really done for us so far. One, our demand visibility is improving. Entering 2022, we had half of that year's backlog, with very little for the next year in hand. You fast forward to this year, we're essentially fully
committed, sold out for this year to deliver the margin committed in our plans. And we have a line of sight to more than half of next year's volume, and this visibility is very strategic because it allows us to really position with our supply chain partners to go long and to go short ahead of cycles and not be caught off guard.

Point 2 on the right, our backlog is growing and it's getting more valuable. You can see from $6.5 billion to $9.3 billion in equipment backlog but as important, it's 10 points higher margin embedded within that backlog. So we say margin expansion in sight, that's what we're talking about.

So in summary, our Onshore turnaround is succeeding. We have more than -- we're more than halfway through our $2 billion EBITDA swing from 2022 to 2024.

So now let's talk about Offshore. I mean, Scott talked about this. The market is going through a tremendous reset and honestly, from where I sit, I believe better days are ahead. And our focus is to really take this challenged backlog of $4 billion, which was really priced and committed pre-2021, pre-inflation period, and get better every year from here. We expect this backlog to be largely completed over the next 2 years while we continue to deliver better EBITDA each year by aggressively managing our costs. And after we install the machines, the Haliade-X, we see us gaining a tremendous experience in having a moat because we'll have more than 4 million operating hours by the end of 2026, which is more than all other OEMs with units over 12 megawatts and 200-plus meter rotors.

So similar to what we've done in Onshore. We're deploying lean to drive down cycle time and cost while improving quality. We've seen the cycle time of our Offshore nacelle production decreased by 40% over the last year. And we've been able to do this while reducing rework. So to reduce the overall structural costs, we're refocusing the team with fewer layers. We're leaning into the Onshore capabilities and we've institutionalized operational rigor to drive intense spend discipline.

And finally, relative to our next book of business, we're applying significant price and project selectivity on our products with future bids, which will position us to build a much better profitable book of business going forward.

So in summary here you can see the playbook with lead with quality, workhorse products, and focus and lean. We're executing that in Onshore, seeing tremendous value and real results. Offshore is up next. This has enabled us to deliver a $2 billion margin swing on about 80% of our backlog and with Offshore, we can see the same things happening in time. So we're encouraged by the market. When you look at the tailwinds in offshore, I would say there's a reset underway.

You've seen some projects be canceled. You've seen PPA prices being awarded that are about 30% to 50% higher from the levels that they were when our backlog was committed to. And as a result, we are repricing our turbines, focusing with the workhorse strategy to really position us to have a very profitable business -- for a business that we take going forward.

So let's just wrap up and close here on the financials. Onshore revenues will be flat, but as we talked about, a favorable mix. We're seeing the U.S. is going to grow meaningfully year-over-year and at higher margins. And while our international revenues will be lower, they're more profitable, driven by the selectivity and the pricing rigor. This margin expansion will drive us to high single-digit Onshore profits in 2024 on top of last year's $1 billion improvement.

So in Offshore, as we said, we continue to execute the existing backlog. Margins will improve slightly in '24, while the benefits of the plan we just outlined will become more visible in '25 and beyond.

So listen, in closing, our turnaround is working. We have a clear line of sight to profitability across the entire Wind segment in 2025.

And with that, I'd love to bring up my colleagues to entertain the question-and-answer session. Thank you very much.
MARCH 06, 2024 / 1:00PM GMT, General Electric Co Vernova Investor Day

Michael Lapides GE Vernova - VP of IR
Welcoming everybody back to the stage -- the team so far this morning. I want us to kick off our first Q&A session. So a little bit of a lay of the land for how we're going to do this today. Please raise your hand if you have to -- if you want to ask a question. But please wait for one of the mic runners, so that people who are listening both online can hear you. Then we just ask that you just introduce yourself and which firm you are from. And please limit it to just one question. Keep in mind, we'll have a second Q&A session later in the morning.

With that, let's get it started. Why don't we start with Joe Ritchie there in the middle. So if one of the mic runners will bring Joe a mic.

Joseph Alfred Ritchie Goldman Sachs Group, Inc., Research Division - VP & Lead Multi-Industry Analyst
Thank you. Thanks for all the details, everybody. Michael, you're killing me with just one question here. There's 1 million. Let's -- I guess, maybe we'll just start with Vic since you just concluded your comments on Offshore Wind. So I'm curious, as you kind of think about that $4 billion backlog that exists today. Two-part question. The first piece is the Ocean Wind backorder, is that still part of that backlog today or is that completely out of backlog? And then secondly, as you think about the profitability improvement in that business going forward, talk to us about the kind of line of sight that you have on Offshore because I think you lost about $1.1 billion in that business last year?

Vic R. Abate GE Vernova - CEO of Wind
Right, right. Do you want to just comment on the...

Ken Parks GE Vernova - CFO
Yes. The large order we referred to at the end of the year was the order you mentioned, and that is out of the backlog now. So we do have a slightly smaller base of backlog that Vic and team are driving off.

Vic R. Abate GE Vernova - CEO of Wind
And relative to the profitability, I mean, when you step back and we talked about it. The backlog was really pre-COVID, pre-inflation and that's a book of business. And the industry was also in a chapter, similar to Onshore Wind where it was chasing. It was saying, listen, if the cost is -- here's the price I have to give to the market and therefore, everybody had to line up.

What's changing now is for governments to get offshore at scale with quality, they realize that the PPAs had to go up. And you're seeing that happen and I do believe the developers in the projects are leveraging that point and they're putting together plans that are more robust, but that did require us as turbine suppliers to also become simpler, with more of a workhorse strategy. Here's the scope I'm going to have. Here's the scope you're going to have and really make the project clearer with less ambiguity so that now we know what it takes to deliver.

And I'll be honest, that's one of the benefits, I think, Scott talks about tuition payment, we have learned a ton executing through this backlog and a ton more to learn as well. And so the next book of business, we will be much smarter as will our customers and the developers and honestly, the regions that want to deploy offshore because they see tremendous decades of industrial growth as well, and they're looking for local supply, local investment as well as the carbon-free energy at scale to come from offshore projects.

Scott L. Strazik GE Vernova - CEO
I mean Joe, the only thing I'd add is, if the room or yourself had the benefit of visiting us in Saint-Nazaire. We make the nacelle for Offshore Wind. I'm there every 3 months, and you see every quarter a drastic improvement on us coming down the learning curve on how we're building these. So with our existing backlog over the next few years, the economics are going to get better off of that life cycle or that learning curve on cost, but it's still a tough backlog for 2 years. So you're really going to see better results on us taking out cost.

We're already starting to pull out a lot of contractors from our operation because we're eliminating waste and getting smoother with it. But all that said, that $4 billion backlog is difficult, but we'll get better. And then what we add to it with substantially different price terms as we can get there leads to a very different economic answer for Offshore Wind.

Michael Lapides GE Vernova - VP of IR
All right. Next question. Let's go to Julian up here in the front.
Julian C.H. Mitchell  Barclays Bank PLC, Research Division - Research Analyst

Julian Mitchell at Barclays. Maybe my question just around free cash flow. So you're looking at sort of a mid-single-digit free cash flow margin through cycle overall. Maybe help us understand what volatility around that you expect because of prepayments and working capital swings. And is there any one of the 3 segments where the free cash flow margin is likely to lead or lag the other?

Michael Lapides  GE Vernova - VP of IR

You can start.

Ken Parks  GE Vernova - CFO

Sure. Thank you for the question. I would tell you that -- as you think about what Maví spoke about in the Gas Power business, Power business overall, that service portfolio drives a lot of stability of cash flow. I would say in Electrification we're going to see probably a little bit more of the down payment activity. You saw the orders that we booked last year being a big pull-in of cash. But while that can be lumpy, as we think about the future, and I won't steal any of Philippe's thunder as he gets to get up after this presentation -- after this Q&A session, there is a lot of demand to be driven and therefore, down payments to be pulled in as the time comes.

When you ask about the question of what really moves it around, I would say, in the next couple of years, the biggest thing that I think about moving our cash flow around a little bit, is what's happening in Vic's business as we're delivering probably more of the Offshore Wind side of the business than the Onshore side of the wind business. The Offshore side, the installation part has a lot more variables in it, including weather.

But I'll affirm to you that as we've given you guidance for 2024, 2025, and then a outlook to 2028 and a specific point around that is by 2028. We're able to capture that within the ranges. So we feel really good about the portfolio overall, how it generates cash, and we'll manage through the Offshore Wind backlog, and I think we'll continue to see really good steps up in cash flow.

Scott L. Strazik  GE Vernova - CEO

Just Julian briefly on that, to give context on the history here. Relative to how we're running this company today, nothing are we expecting with new orders that is, as an example, out-of-market down payments early, okay? And there's been times over many years in this business. We may have been more dependent to have high down payments early, that is not our true north. Our true north, going back to my earlier discussion, is the economics of the backlog in totality. So with that, in a compare contrast of yesterday in tomorrow, those working capital swings in a 1 year are going to be less because the true north is accreting margin on that equipment backlog every day, to be clear.

And then with that, I mean, we gave some of the examples. We do still see real working capital improvement. I mean Maví framed up in Gas Power, some of the lean improvements in the supply chain, still even today, 40% of our Gas Power supply chain, that's farthest along, are on lean lines.

Ken Parks  GE Vernova - CFO

Yes.

Scott L. Strazik  GE Vernova - CEO

She has a lot of working capital improvements. And I would say that is humbly assumed in this framework with an expectation that we'll run the businesses to better results than that.

Michael Lapides  GE Vernova - VP of IR

Before we go to the next question. Just one quick thing. Let's limit the questions in this session to the presenters who've already gone up because we're going to have several others. We're going to have Philippe come up. We'll have Ken. We'll have an innovation panel.

With that, let's go to our third question. Mark Strouse over there in the middle.
Mark Wesley Strouse  JPMorgan Chase & Co, Research Division - Alternative Energy and Applied & Emerging Technologies Analyst

Great. Mark Strouse, JPMorgan. Can you talk about your Offshore Wind backlog outside of the pre-COVID contracts, the $4 billion that you've mentioned. Understand that margins are going to look a lot better. But can you talk about the shape of the revenue curve? I mean if we get to -- if you're burning off the low-margin backlog over the next 2 years, is there kind of a hole to fill in 2026? Or do you already have that visibility? If you get an order tomorrow, can you talk about kind of the delivery timeline of when that might be?

Vic R. Abate  GE Vernova - CEO of Wind

Yes. No, and jump in, guys, but a couple of things on the profile. You'll see the revenue basically flat to down a little bit and then go down. Relative to new business, we're not taking any new business unless it makes economic sense. We are out talking with customers, it's long cycle, as you know. And we have taken our turbine pricing, and we've reset. Roughly from the backlog you're seeing about 50% higher. So if deals go forward, that's the only way we're going forward.

Now to that point, the business was scaling its structure and its cost to fulfill. We are putting that in a box. And by pulling Onshore and Offshore together, we actually believe we can go down quite a bit in cost and structure. And we talked about last year in Onshore, we took $0.5 billion out of that structure. There is a pathway to see similar kinds of numbers in Offshore as well and when you put it together as a segment, there's a real chapter here of cost. And if the market resets and the pricing we need to be successful clears, which you look at the PPAs going up, we think it can. This becomes a very nice chapter that's very accretive down the road.

Scott L. Strazik  GE Vernova - CEO

Because, Mark, to your point, there could be a period of time with limited Offshore Wind revenue. We're just not going to run the company with that concept of having like a tank to fill with any 1 year. That's not our true north. So just to reinforce Vic's point. If the market doesn't get to a point that we like the economics, exactly as you framed up, could very well happen. But that's exactly why Vic has combined the product lines into one business. We're taking out costs, and we've managed through that period of time. But we'd rather do that and then wait for a business we like than to try to fill a '26 volume profile per se.

Michael Lapides  GE Vernova - VP of IR

All right. Let's go to the next question here in the front row.

Clifford F. Ransom  Ransom Research, Inc. - Founder & President

Cliff Ransom, Ransom Research. For the operating heads, one of the keys to me in a lean journey is the sustainability of the culture. You've given us lots of examples of places where you try to apply lean thinking and they did very well. Tell us about your learnings, Vic, I love your phrase, we paid a lot of tuition to learn things. Tell us some of the things that you attempted that didn't work and then what did you do about it? That you thought were major objectives in any lean journey, there's a certain amount of pulsing, if you will. Can you talk about some of the things that didn't work well and what you then did about it?

Scott L. Strazik  GE Vernova - CEO

Mavi, you want to start?

Maví Zingoni  GE Vernova - CEO of Power

Thank you for the question. We think about the lean journey in this company. First of all, it's mindset, it is the continuous improvement. And again, if you analyze the whole Gas Power, I mean, we only have 40% of our hours on the lean line. So it means that we have a lot of opportunities to improve there. Think that probably we're -- a great good deal, this is a culture. This is a culture of continuous improvement to apply to everything that we do, regardless what the activity is and we are in that journey and everything that we make a step, we have to continue moving there.

I think that is important and where we are making better and better is to have the right KPIs to really measure what is important in the business. And then when it is not working to have the right problem solving there and to really work on the root cost analysis. So that's really important.

And if you ask me, probably we need to do better every day there. But that's in focus on today on the present on the next months. And
then it's what you do in the longer term? How do we think about all those breakthroughs to help us to build the capabilities to be there in future. And that is depending where you are in the life cycle of the business where we need to keep on improving.

Clifford F. Ransom Ransom Research, Inc. - Founder & President

(inaudible)

Michael Lapides GE Vernova - VP of IR

Maybe if I repeat that because I want to make sure people who are online can hear that question. He was looking for an example of something that didn't work.]

Scott L. Strazik GE Vernova - CEO

Yes. And Clifford, I go back to, if I parachute you into our operating reviews and something we're continuing to work on every day is embracing the red when things don't work. Part of what we're working on as a company and what I'm so excited about is our teams are becoming a lot more ambitious with their targets on things for the long term. So if you were in our operating review in January, you would have heard me say, guys, if we don't have on the long-term lean breakthroughs, half of it in the red, we're getting something wrong. We want to fail half the time with our big swings, and we'll hug you as that happens, not on the stuff that's critical to the customers tomorrow. That's a 4 alarm fire.

But on the breakthroughs, culturally, we're still gaining our ambition, and that's part of Cliff why I have so much confidence in what this company is going to become because the teams are just getting their feet under them right now to really have that confidence and the ambition to swing bigger. Gas have their feet under them do a larger extent there. But I would tell you a lot of Vernova is just now starting to raise the bar of expectations to where we want it, embrace the red and then through that process really transform the company.

Michael Lapides GE Vernova - VP of IR

We go to the next question here, Andrew.

Andrew Obin BofA Securities, Research Division - MD

Just a question on gas turbines. Is there -- a lot of talk about your market share on the installed base, but not a lot of talk about market share on you. How do you think about the market share for each frame going forward? Do you feel like GE has sort of its natural market share in the market? Historically, you've been the leader or you just sort of managing the business now for margin, and you just -- yes, I'll just leave it.

Mavi Zingoni GE Vernova - CEO of Power

Yes. Not so focused on market share. I mean for us, it's growth, but it's profitable growth. We seized the gas power business for somewhere between 25 and 30 gigawatts a year. And we are very pleased to see the market above it. So it means that we can be more selective on what are the deals that we want, thinking about equipment and thinking also about their long-term services. So what's the value of that unit in totality. But even if you analyze the market share, we are very pleased with the market share of the H-class. But again, main focus for us is not going to be the market share, it's going to be a profitable growth.

Scott L. Strazik GE Vernova - CEO

What we problem solve every day is how we are competitively positioned on performance with H, but don't overthink the losses that are associated with terms and conditions and price we don't like, okay? We're not going to chase the business. But where we think we're not as positioned as we should be on performance. We've got an incredible product management engineering team that continues to problem solve and make us better. Now the good news in that regard is we're winning the proportion of business that we believe we should be in that regard. But there's going to be terms and conditions we're not going to go after with our Gas business. And we see that every day.

Michael Lapides GE Vernova - VP of IR

Got it. Next question here in the middle.
Andrew Percoco Morgan Stanley, Research Division - Research Analyst
Andrew Percoco with Morgan Stanley. Maybe just coming back to the Onshore and Offshore wind business. You talked about being disciplined on pricing for Offshore wind. What else are you doing to protect yourself on the longer duration project development life cycle that we're seeing across the wind market outside of just getting more favorable pricing upfront, the inflation, indexing other contracting changes that you're making across that business?

Vic R. Abate GE Vernova - CEO of Wind
Yes, I'll jump in and then feel free Ken. Totally pricing, step one. But the terms and conditions and the details matter. And so a couple of points. I'll just give you one example in Offshore. When we deliver, we deliver to a marshalling harbor, that marshalling harbor is full. Now we can't deliver. And so the cash terms of all of that now get stuck between some of those logistics. Things come out of the marshaling harbor with somebody else's scope. They own that and weather issues, vessel issues, but my cash is tied up because of that situation. So when I said we're getting smarter, those are the details that matter here.

In Onshore -- the other side is costs and the transparency and the ability to have indices to manage those costs. So we have all those in a way that we feel comfortable to manage and navigate the project cycle. In Onshore, we just play a much shorter cycle game. I'm not bidding beyond what I know my known, known costs are. So I've got an engineering team and a product management team that are working with suppliers in the supply chain, driving my product costs down for a standard bill of material. Meanwhile, the market prices are known and I've got no knowns on both.

To go beyond that, we aren't doing that right now. And we don't feel the need to. Now we will talk to our customers. We'll give them indicative details, but I won't be long like you saw the backlog happen in Offshore -- in Offshore or Onshore without those kind of controls.

Michael Lapides GE Vernova - VP of IR
Next question in the back in the middle -- right here.

Moses Nathaniel Sutton BNP Paribas Exane, Research Division - Research Analyst & Head of Clean Energy Research
Moses Sutton, BNP Paribas. How do you think about long-term upside to gas turbines due to overall load growth versus generation supply challenges? So not only what we know about how load is growing, but when we think about, for instance, seasonal factors affecting renewable capacity factors dropped 50%, 75% from summer to winter. There's a deep call on gas. And I'm just wondering how you think of this. Is this more a tailwind for the Gas Power equipment side, rising gas baseload, need longer term, more on maybe the 800 gigawatts that you have installed and retrofitting those capacity factors. How do you see Gas playing that role?

Mavi Zingoni GE Vernova - CEO of Power
Well, the foreseeable future, I see only upside in the Gas Power business. Many reasons for that. I mean, first of all, our installed base, and I said before, I mean, the utilization of that installed base keeps on going up. Then we have the new units. I mean that the gas is going to play a role in the energy transition. And its -- that's something that we need to understand that this is just a transition and the gas power is an enabler for the penetration of renewables.

So -- and it depends on where -- in which region we are in, you have a faster growing demand, you need more baseload power right now, affordable, secure, dispatchable. But we also need the flexibility for the penetration of renewables to stabilize the grid. So the Gas could play a role there. They have different equipment. The aeroderivatives also play a role with the penetration of renewables.

So all in all, the gas is -- I mean the demand is strong right now, and we foresee it to remain strong for the role that it can play. But it doesn't end here. We're also investing in decarbonization opportunities. Not only the coal to gas switching is going to accelerate the demand as well. But then what we are doing with hydrogen, giving the flexibility to our customers to also work on carbon emissions reduction and then the carbon capture. So I think it's not only the gas today, but what we are doing in decarbonizing all of our portfolio to give opportunities to our customers.
Scott L. Strazik  GE Vernova - CEO

If I give just a -- example of a bull and bear case that I've gotten wrong with Gas over time. Going back to when I was running the services business in '17, '18, we invested in upgrades at that time to allow our gas turbines get to much lower turndown ratios while staying on and ramp up a lot faster. Pure, ramping down, ramping up capability with the upgrades. In '17, '18, those weren't selling. Customers would tell us we like it, but we can't get it justified in our rate base if it was a regulated utility. There wasn't a way to kind of quantify that value of shifting a turndown ratio from 40% to 50% of the gas turbine to 20% and to pay us for the ability to ramp up faster. Those are selling today.

As the grid has become more complex, customers' ability to pay for that operational flexibility has changed. '17, '18, they weren't moving. '23, '24, '25 real demand as one example that I was probably more bullish 5 years ago, and it took a little while.

On the flip side, with the teams, I was probably more bearish on customer upgrades for hydrogen capabilities because I just felt like it was going to take a while for the hydrogen to show up. Economically it makes sense. Customers are making real investments today on ramping up that hydrogen penetration or mix faster than I think they're truly going to blend hydrogen into the gas turbines. But that's happening faster than we probably anticipated. So there's a lot of different elements here where customers are investing in this fleet with more conviction than I would say in my 10 years here, on things different than just pure output enhancements.

Michael Lapides  GE Vernova - VP of IR

We have time for one more question in the individual in the middle right here.

Nigel Edward Coe  Wolfe Research, LLC - MD & Senior Research Analyst

It's Nigel Coe from Wolfe. So Scott, I think you mentioned 10% of the load in the U.S. will be data centers by '23 in that zone. Obviously, there's a lot of interest in direct generation for data centers, be it SMR or other things. Do you see that as a potential growth vector for Vernova over the next 5, 10 years?

Scott L. Strazik  GE Vernova - CEO

The data center load growth, for sure. I mean, when we sit with our customers today, the complexity of what's happening is customers have made decarbonization commitments within any of their individual systems. And now subsequent to having those commitments, they're getting massive new demand put upon them on what's needed, that's above and beyond what they anticipated. So the challenge our customers have right now is they're looking at their existing fleet and number one saying, I probably need what I have already longer just to support the system and the load growth is going to be higher.

And it's going to be higher with power gen sources that need to be resilient. And that's where gas is getting even more strengthening today but will be complemented with the zero carbon solutions because you need the firming power for the data centers, but they've made commitments. They have no intentions in missing on decarbonization which is where the SMR and the Wind bulk discussions are really accelerating.

And we really haven't experienced this in the U.S. really the last 20 years. It's been a pretty flat demand cycle. I mean we've done a lot of coal to gas switching. It's decarbonized the system, but it hasn't really been driving increased electrical load. That's changing. It's going to have to change if the tech companies are going to get what they think they need this decade.

Michael Lapides  GE Vernova - VP of IR

All right. We will now adjourn for a 15-minute break, just a few logistical items.

Our technology showcases, the experts will be out there. If you'd like to see, like the video that Vic showed earlier today or some of the other technologies, please go visit those. Otherwise, we'll be back here in 15 minutes. Look forward to our next session.

(Break)

(presentation)
Our future is electric. What is electrification? It is about the process, substituting technologies, empowered by fossil energy with technology that use electricity. On the left side of this page, as you can see, 2 major domains at the center of electrification. Power grids, the electro-digital networks transferring and distributing electricity and Power-to-X, the electrical conversion storage and reconversion to other kind of energies, both addressable markets by GE Vernova growing double-digits. Reaching a decarbonized world with the net zero energy systems requires to mobilize several levers to reduce the 50 gigaton of CO2 equivalent emission before 2050. Electrification is serving each of these critical CO2 reduction drivers.

Let me providing some examples here on the right side of this page. First, for generation decarbonization, 26% of emission to be reduced. Electrification is obviously allowing renewable distribution and transmission and securing the grid to integrate this intermittent variable energy resources. Energy efficiency, 23% of emissions to be reduced. The less polluting and the most affordable energy is the energy you do not use. Through automation and digitization, electrical devices can set up to 20% and even 30% of energy consumption.

Third, electrification of the end use. Electrification allows obviously to convert heavy-duty industries and transportation to electricity. And allow as well the access of power, as mentioned, Scott, to new exponential demand like data centers. And finally the fuels, green hydrogen and its derivative, addressing the remaining 29% emission very hard to abate, for which electrification is allowing to provide the micro grid or the power conditioning systems for electrolyzer or carbon capture systems.

Overall, electrification is the backbone of the energy transition towards this net zero energy system and this is why we are benefiting from this fantastic growth. From $75 billion in 2022, we expect the addressable market by GE Vernova to more than double in 2030. GE Vernova is covering the full value chain of electrification from the point of generation to the point of consumption. I must admit we have a unique positioning here. Our equipment evacuates the electricity from conventional power plants or renewables transmitted at international or national level with high-voltage direct current or alternative current transmission systems and it flows afterwards to the distribution grid at regional or local level, to finally being converted into other kind of energies necessary for each end use. For instance, mechanical energy with electrical motors, thermal energy with electrical furnaces, chemical energy with battery storage or electrolyzer.

On power grids, orchestration allows to monitor and to conduct the full infrastructure. We are strong on grid transmission and primary distribution, but we are leading edge on grid orchestration and digitization to supervise electrical networks, which are becoming more and more complex.

From where it comes exactly this current outstanding growth. Well, obviously, it is fueled by the imperative of energy transition with the rise of the low carbon intensity energy for sure. but as well energy security. Think about the Ukrainian and Russian conflicts, 1,400 cyber attacks on the Ukrainian grid only in 2022. At the moment, more than 50% of the transmission substation in Ukraine has been destroyed by Russian missile, far beyond any attacks on the Ukrainian power plants. The grid is a vital infrastructure for national security. No transmission, no transition. No energy resiliency, no energy security.

The second big growth driver behind that is obviously the need for grid stability and flexibility in use by the renewables. Viable energy resources in use and intrinsic instability of frequency and voltage into the grid, which could lead ultimately to blackout. This is why reinforcing the grid with different kind of equipment, energy storage, power for control, reactive power equipment is mission critical to restore this equilibrium.

And finally, the most obvious growth driver. The global increasing demand for electricity accounting for 20% of world energy consumption in 2022. Electricity would reached 50% in 2050 to reach the net zero objectives.

To capture efficiently this profitable growth, GE Vernova is committed to develop top-notch technologies that allow us to secure a leading-edge positioning. On the top side of this page, for power grids, we developed 2 gigawatt bipole HVDC system, a full range of grid
stabilization solution, and we offer SF6-free switch gears, contributing to set the standards of the grid industry.

Last year if you remember we deep dive into our technological platform for HVDC. And 3 weeks after the Investor Day, we were very pleased to be awarded 5 major HVDC deal for the North Sea with TenneT the Dutch and German transmission system operator. This year, early this year, we have been awarded by National Grid U.K. EGL1 and we continue to develop a very solid pipeline of opportunities in Europe, but as well in the U.S.A and in India.

Regarding grid stabilization, we are now offering the most advanced technology, grid forming controls, and super capacitors for STATCOM. And when it comes to sustainability, we have been one of the first to offer high-voltage switch gears, not using SF6 analytical isolator used by OEMs, but a very important gas for the planet.

If we switch now to the bottom side of the page, Power-to-X, which is critical for decarbonizing end use. We are a core leader worldwide on converters for green steel electric arc furnaces. Our converter allows these giant furnaces to connect directly to the grid without creating electric harmonic pollution which is the regulatory obligation and as well, which allows the end user to save on power and on electrodes in the furnace.

Another example of our innovation is about marine electrification. We are going to disrupt the marine motorization, choosing power electronic drive and the motor into a very compact integrated electric network topology. We envision to save, thanks to this technology up to 70% of the footprint on the shift and 50% of the cost for the customer. And we continue just need to upgrade our battery storage solution with grid forming controls and a more flexible battery management system.

As you can see, GE Vernova renews its technological platforms to stay at the forefront of innovation. But innovating will be not enough in front of the outstanding growth. Today, we also invest in our industrial capacities and engineering capabilities to meet customer expectations. First, deploying our lean operating system for sure, to reduce our lead time like we did in 2023. We achieved 35% lead time reduction in Charleroi, for instance, one of our factories in U.S. in Pennsylvania to fulfill the accelerating demand, especially here in the U.S. market and simultaneously to reduce our cost and to expand our production output.

Second point, investing in our plants like Stafford, this UK site you’ve seen in the little video, to double our manufacturing capacity of both HVDC valves and transformers. And by redesigning the shop floor layout, adding a new production line, and modernizing our high voltage test laboratory.

Finally, growing services would be very important in growing services more aggressively for this segment. Debottlenecking our service workshops and enlarging our range of offering with more advanced services like al asset performance management. Digital, indeed, another exciting domain of investment is our Electrification Software activities, for which Scott Reese is going to provide us an illustration, but first, a short video.

(presentation)

Operator
Please welcome to the stage CEO of Electrification Software, Scott Reese.

Scott Reese GE Vernova - CEO of Electrification Software

Thank you, Philippe, and good morning to everyone. It is such an exciting time for all of us to be together. And what a powerful video from our friends at Alabama Power, and hopefully, you took away some of those numbers because it's a great illustration of the impact that our software has on the daily lives of our customers.

Over 13 million minutes of electricity outages prevented. And that's just for the first 45 days of this year and only for the folks in Alabama. Just imagine what those numbers look like on the global scale that we serve, talk about reach and impact. Now the other thing you heard in that video from Scott and Melanie is that they share their point of view that the energy transition will not happen without software and artificial intelligence playing key roles in driving it. And we couldn't agree more with that point of view. The energy transition is the exact
focus of our Electrification Software business. And that sharp focus on energy has enabled us to deeply transform our Software business over the last 24 months since we announced the spin of GE Vernova.

We've taken out a tremendous amount of structural cost with that focus. We've leveraged the focus on energy to drive growth into the business. And with that, in 2023, we delivered a profit for the first time since GE Digital was founded over a decade ago, something we're very proud of. We really like the trajectory of this business. Now our software solutions span the energy life cycle. We start out with optimizing how power is generated. We orchestrate how it's distributed and then we ultimately decarbonize how it's consumed in manufacturing and industrial applications. And we're a recognized leader by industry analysts in each of those 3 target segments.

Now Philippe talked about a lot of our growth demand drivers and how they're coming from unprecedented demands being placed on the electric grid. And it makes sense if you think about it, think about the electric grid, it was built over 100 years ago, 100 years ago. And it was built for a much simpler world where electricity was generated in a large facility and then distributed out to the point of consumption without a tremendous amount of variability to be considered. Wow, how things have changed. Fast forward 100 years to today, the energy system is far more complicated, and there's a lot of variability that must be closely managed to prevent widespread outages.

So where is this variability coming from? It's a lot of different places. Vic talked about a lot of it this morning with the growth of renewables. That's only going to accelerate as we move forward. As you introduce more and more renewables onto the grid, the wind doesn't always blow, and the sun doesn't always shine. Our utility customers have to be able to predict, plan for, and ultimately orchestrate that new level of variability. You and I as consumers, we're placing solar on our homes, which is great. But for the first time, residential solar is placing electricity back onto the grid, creating a bidirectional flow of electrons, not something that the grid was designed to handle.

Storms. They're becoming more frequent and more intense. Our utility customers have to be able to predict the impact of those storms on the grid operations and be able to respond effectively to prevent the prolonged outages that we all fear. And then the cyber landscape has never been more complicated than it is today.

And with the grid, a topic of cybersecurity quickly turns into a topic of national security. Everything about how utilities have operated their grid has changed dramatically over the last several years. Utilities must move away from viewing the grid is something that they operate with manual operations to a much more modern architecture that gives them the ability to see the entire grid and orchestrate for these variabilities. With these demand drivers, we see the addressable market for our energy-focused Software business to eclipse $27 billion by the year 2030. We really like not only the trajectory of the business, but the growth opportunity ahead of us.

Now the reality is that GE Vernova is a leader in the grid software space already today. Our software is the heartbeat of the control room of a utility. And that leadership position has been earned over decades of partnering closely with the world's largest utilities. We employ hundreds of energy-focused PhDs and software engineers who bring the expertise to work every day that are required to understand and manage the complexity of the modern-day grid.

Now we've extended that leadership position with the launch of a next-generation grid software platform that we call GridOS. GridOS breaks down the historical barriers between the transmission grids and the distribution grids, to enable utility customers to be able to see the entire grid as one system for the first time ever. And with that increased visibility of one grid, GridOS then uses artificial intelligence to help our utility customers see what's coming, predict the impact, plan for it and ultimately in a much more automated way orchestrate the grid, bringing grid resiliency and energy security for everyone.

GridOS is a highly differentiated offering. It's the first of its kind, and it is modernizing the grid at a rapid pace. We have 55 of the world's largest utilities committed to move to GridOS and more and more of these conversations happen in each and every day. We're confident that GridOS and our Electrification Software will be a strategic growth driver for GE Vernova for years to come.

So hopefully, you're taking away that we have made a tremendous amount of progress with our Software business over just the last couple of years. But we have far greater ambitions for what's possible and what we're going to do here. You heard Scott say that we're
eclipsing $1 billion in revenue. We're going to continue to expand the margins in this business, but we're also modernizing this business by moving it into the cloud and moving to a subscription business model that leads to annualized recurring revenue, or ARR, where we have an ongoing relationship with our customers, we recognize the revenue and the cash over time -- we bring a lot of predictability and our teams wake up each and every day with a vested interest to make our customers more successful day by day.

Longer term, we're driving this business to something that we see as best-in-class for the software industry, something many of you call the Rule of 40. If you're not familiar with the Rule of 40, it's where our growth rate added to our profitability margin will eclipse 40%. That's what we do as best-in-class. That's where we're driving this business to.

So we're confident that we get this business well north of $1 billion. We meet the metrics for the Rule of 40, and we have a high mix of annualized recurring revenue, ARR. You're really going to like the value that this software business brings to the overall Vernova equation. We're equally confident in the role that our software will play in accelerating the energy transition for GE Vernova and for the world.

And with that, I'll invite my colleague, Philippe Piron, back to the stage to bring us home with some financials around the Electrification segment in totality. Philippe.

Philippe Piron GE Vernova - CEO of Electrification Systems

Thanks, Scott. During 2022 Investor Day, we promised to deliver a more acceptable financial performance for these electrification assets. Today, I'm very pleased to say that we overachieved this first objective, even better than the mid-single-digit revenue growth and modest profitability indicated during last year's Investor Day.

As you can see, on the left side of the page. This recovery has been based obviously on growth, thanks to a buyer market, which has become a seller market but also based on selectivity and premium pricing, more productivity and cost out, supported by a decentralized, more accountable organization and lean deployment. Having the benefit a very strong tailwind from a strong market growth is nice. But what really makes the difference is the action you are making with it.

To stay very simple. Over the last 2 years, we only booked the deals we liked and the deals we were capable to pursue and to execute. And in parallel, we contain our variable costs by redesign to cost to product and improving the labor efficiency and continue -- continuously reducing our fixed G&A costs. And the result is there on the right side. From a negative 9% adjusted EBITDA margin in 2021, we reached approximately 4% positive EBITDA margin in 2023. An improvement of 13 points from minus $0.5 billion to plus $0.2 billion adjusted EBITDA, while our revenues have grown by 25% between '22 and '23.

In 2 years, we've gone from a loss making business to a profitable business on a very strong growth trajectory.

And in parallel, we built a more resilient, better quality equipment backlog for the future while executing diligently or legacy lower-margin business. As Scott said, one of the most important indicator for profitable growth is the quality of your backlog.

And we focused over the last 2 years to build a new backlog, underwriting deals with better pricing -- much better pricing, more favorable conditions, T&Cs, liabilities, better protection and inflation, and at the same time lowering the execution risk exposure we have, both contractually and technically.

On the left side of the page, you can see that we more than double our backlog going from $5 billion to $13 billion in 2 years, while sequentially improving our margin up to 6 points in 2023 compared to 2021. Our book-to-bill ratio has improved in a similar way, giving always the priority to pricing, better T&Cs, margin quality versus the pure search of the volume.

On the right side, our backlog has now a longer convertibility profile and more than 50% to be converted over the next 2 years. It provides a significant visibility for future revenues. Our ambition is to continue in 2024 and the year after to build this backlog with the same quality. And we think that we have a unique opportunity because all our customers are claiming for more deliveries and even faster deliveries. So we are doubling down on deploying lead time reduction, productivity and capacity extension to serve this future growth.
From a past highly cyclical and turbulent business, we are now offering a sizable long-term revenue and high-margin visibility.

As a conclusion, I would say that 2023 was a great year for the Electrification segment, no doubt. We grew revenues by double-digits and reached our first profit in a very long time. I'm very proud of what has been accomplished by all our teams. But it is only the true start of this story.

What is our vision? This profitable growth should keep on accelerating. Our guidance for 2024 is low-double-digit revenue growth and mid-single-digit adjusted EBITDA margin. The demand growth should remain strong at least for the next 5 years. And the megatrend for Electrification favors a bullish cycle for the next 2 decades, that's really exciting, our increasing backlog, both in volume and higher margins to secure these targets. Margin expansion will highly benefit of both volume and pricing sequential improvement in '24, but as well in '25 and the year after with even more profitable growth. We stay committed to delivering a predictable long-term value in a fast-growing market. And remember, our future is electric. Thank you.

Operator

Please welcome to the stage GE Vernova President, Jessica Uhl; Chief Commercial Officer, Pablo Koziner; Chief Sustainability Officer, Roger Martella; and Chief Supply Chain Officer, Dan Garceau.]

Jessica R. Uhl GE Vernova - President

Good morning and first of all, thank you so much for being with us on this exciting day for Vernova. It is a pleasure to be here with all of you, with my colleagues Dan, Roger, and Pablo to share a bit more about innovation. You've heard a lot about it today from each of the business leads and Scott as well. We're going to try and bring that to life a little bit more. We are driving innovation throughout our business, and we are developing and scaling leading-edge technologies and business models to drive profitable growth.

I joined Vernova in January. I am very excited to be part of a company that I think is so well positioned to electrify and decarbonize the world. We have a distinct set of businesses, products, capabilities, and market positions that I think puts us in an incredible position for us to lead, as I said, the electrification and decarbonization of the energy system.

Our portfolio speaks to our long history, but it also gives us the power to shape the future of energy. Innovation is part of our DNA. It starts with our distinctive research and development capabilities. We have that within our businesses, but importantly, we have it also in our Advanced Research Centers, both in New York and in India. We have some 300 scientists and researchers that are tackling some of the most challenging issues in the energy system today.

We're delivering leading-edge technologies not only to support our current businesses, and you heard a lot about that today already, as I said, from each of the business segments, but also developing the leading technologies of the future, such as small modular reactors, direct air capture, and carbon capture and storage. Again, some of those things that you heard about today, and we'll speak a little bit more about over the next few minutes.

To deliver the transition of the energy system that we need to meet the demands of energy that are in front of us, we need new solutions, and the best solutions come from bringing the best minds together, and we're doing that. We are building a unique ecosystem, collaborating with universities, governments, start-ups, and other corporates, as I said, to bring these mines together and to tackle some of the toughest issues facing the energy system. We have some 80 programs with the Department of Energy today across a breadth of technologies and some 50% of our funding today comes from third-party sources.

So with that, I'm going to start turning to our panelists to bring some of these ideas to life a bit further. I'm going to start with Pablo, our Chief Commercial Officer for the company. People have been talking a lot about artificial intelligence, data centers, the impact that's going to have on the energy system. Pablo, can you talk a little bit more about what's happening to the energy system with respect to AI and the impact for our customers and for Vernova.
Absolutely. Thank you, Jessica. And already a big topic for today. I just want to reflect on something that Scott talked about earlier. In the next 18 years, the global power generation is expected to double. That's a staggering fact. And a lot of that's due to the increase in computing power as we interconnect more things and rely more on cloud-based activity. We also talked about data centers in North America, representing about 2% of the power consumption. Globally, that's 1% to 1.5%, and that number is growing significantly.

Now think about artificial intelligence. We're just at the beginning. If we were to take artificial intelligence today at full adoption, it's anticipated that, that would require 10x the amount of energy for our data centers. Why? Because artificial intelligence is continuously learning and being applied. We talked about how difficult or challenging it is becoming to add more capacity to the grid because we want to do that in a way that's sustainable, continuously lowering carbon intensity while maintaining reliability, safety, and cost effectiveness.

But that's where I think we come in and we play a very significant role. GE Vernova is uniquely positioned because if you look at all the products and the capabilities, our ability to integrate and help customers add that capacity in a coordinated way, the timing for us can be better to help our customers.

Jessica R. Uhl GE Vernova - President

Great. Thank you. Thank you, Pablo. It's extraordinary in terms of the potential or the real impact that AI is going to have, as you said, and working with electricity and working with the grid, this is pretty sophisticated issues to manage at a company level as well as at a system level. Can you talk a little bit about our consulting business and how we help people deal with such sophisticated issues?

Pablo Koziner GE Vernova - Chief Commercial Officer

Sure. The consulting group is one of -- it's a very exciting part of Vernova, amongst other groups that we have. The consulting services team helps our customers plan for additional capacity. And so we talked about the technical challenges of doing that. But they're focused on is how do you add capacity while maintaining balance in grid systems.

Why is balance important? You have to continuously match the demand and the supply. If you don't do that, you get instability, bad things happen. In the past, we've relied a lot on dispatchable power. That's power that you can call on when you need it. When you have intermittent power, so weather-based, solar and wind, those things come on and off depending on the conditions in the environment and then have to be matched with that dispatchable power.

And so our consulting services team, what they do is they simulate the grid, they bring in all the technology that's being added, and they start to identify with their customers and our internal teams where there are potential weak points in design, areas of congestion that we can help coordinate and orchestrate. And then, of course, areas of opportunity where we can bring more cost effectiveness. So it's a very exciting capability. And if you think of that in the planning stage and how that flows into what Scott Reese was just talking about in GridOS, it goes into the operational and transmission and distribution. It's a great capability.

Jessica R. Uhl GE Vernova - President

Excellent. Thank you. Thank you, Pablo. Dan, I'm going to turn to you. We've heard a lot from each of the business leads starting with Maví, with Vic, Philippe, and I'm not sure if Scott touched on it as well, but I'm sure it exists in this business as well, lean. Lean is hugely important to us. Can you share a little bit more about lean and the impact on Vernova.

Dan Garceau GE Vernova - Chief Supply Chain Officer

Certainly. Thanks, Jessica. Good morning, everybody. Yes, it's definitely a thread that connects all our businesses. Scott kicked this off today, with lean, we use lean to drive a culture of continuous improvement and why we invest in long-term breakthroughs. And that's really how we see it. It's really taking care of today's problems and setting up capabilities as we go forward in the future.

We heard a lot of definitions today on lean. So for me, it's maximizing our productivity and efficiency while reducing our lead time. So we do that by creating flow, whether it's information or material, and we do that by reducing waste, too much processing, defects, not even utilizing our talent to its full capability. So we encourage our teams. We embrace the red. We fail fast. We problem solve. We get them
back on track. Cliff, we've done level loading a couple of times, and I think we have it figured out now. But the lean mindset is how we run the business, and it's how we're going to run it going forward with Vernova.

So I think capacity for growth is a great example. So if we go back maybe a little bit over a year, we had a good problem in our Baron site in France. It's high-tech machining and milling. And we had more demand than we thought we had in the shop. And so instead of just throwing capital at it to fix the problem, we threw a lean at it. And so we ran a set of 10 orchestrated kaizens over the course of the year. We reduced our lead time at 50%. So we've essentially increased our capacity by 50% in the site without adding capital. And we're also able to go from 3 shifts to 2 shifts in those areas, and so we actually -- now we have growth in the future.

Jessica R. Uhl GE Vernova - President

Great. Good. You've talked about lean and then the operations. And I think a really important point in terms of how this can be one of the low capital ways for us to expand capacity throughout the system. Let's bring it back to innovation. Can you talk about how lean is contributing to our culture of innovation and making innovation happens?

Dan Garceau GE Vernova - Chief Supply Chain Officer

Sure. We had another example, I think, from Vic on how we're inspecting our blades to reduce defects, but I like your area, Jessica. We're doing -- we're using lean in our advanced research center, really -- the number of ideas out there and where we need to go with our technology, it's just accelerating so fast right now. And so we need method processes to build capabilities on how we ID these ideas, assess the ideas, cultivate them. And then join connect with our internal and external partners so we can commercialize and scale them. So I mean, this is building on our historical innovation, but we're pulling in these partnerships, thought leaders, customers, suppliers, start-ups, I think. And -- yes, I mean, it's important for us that we leverage this whole community as we go through the energy transition.

Jessica R. Uhl GE Vernova - President

Good. Thank you, Dan. One more question.

Dan Garceau GE Vernova - Chief Supply Chain Officer

Okay.

Jessica R. Uhl GE Vernova - President

So different concepts in lean. I think you brought a lot of that to life. Scott talked about kaizen, that's had a -- that's an ongoing area of focus from our -- in terms of our lean agenda. But can you talk a little bit more about that? Not everyone is necessarily familiar with kaizens.

Dan Garceau GE Vernova - Chief Supply Chain Officer

Okay. Yes. So a kaizen, my definition is it's a week-long sprint for us. It's data-driven. It's cross-functional. It's at the place of work. And really, it's creating a process or improve -- significantly improving a process during the course of the week. So we come back in that next Monday morning, and we're running that new process. It's going to drive safety for our employees. It's driving quality and delivery for our customers and then cost and cash for -- to reinvest in the business as well as our shareholders.

So we spoke about the CEO Kaizen that we did, that fun was guys, I think we were all part of it. I actually spent the week in Saint-Nazaire, referenced that in the Q&A, it's where we build our Offshore Wind nacelles. A lot of opportunity there. We had 7 teams going in Saint-Nazaire during the course of the week. And one of the teams was focused on -- we did post-production processing. And so not the most efficient way to do it is when it comes off the assembly line to do a bit more work before it goes to the customers. So we focus that we can pull in -- we were able to pull 70% of that work back into the main line. So reducing our cost, reducing the amount of hours to build those nacelles.

And like I mentioned, I think we were all part of it. Our senior leadership team as part of it. We're going to run hundreds of kaizens this year, but we ran 70 at the end of January and really a great jump start to the year. And when you compound all these improvements, just
of these 70, almost 100,000 reduction in the potential for safety incidents. Almost $50 million of cost out. We created capacity to take $700 million of new orders during the course of the week. So really, it seems kind of odd to close your computer, put your phone away for a week, but that's how we work. And you can drive significant improvements. And yes, lean is how we work.

Jessica R. Uhl GE Vernova - President

Great. Thank you for that. And indeed, I participated it was my second week in the company, and it was a great introduction to the culture and to seeing how you can make change happen very quickly in the organization.

Roger, we're going to turn to you, change the conversation a bit and talk a bit about energy security. It's more in people's minds. We've heard a little bit about it today already from Philippe and others. You work with our government partners. You've had a lot of experience in that area. It's an important piece of the Vernova story. Can you talk -- give some examples of how energy security has been a more prominent issue for the company and how we're having an impact?

Roger J. Martella GE Vernova - Chief Sustainability Officer

Thanks, Jessica. And I certainly agree with your proposition. Energy security has really driven kind of an unprecedented urgency for the deployment of our generation equipment, Maví's business, Vic's business as well as our Electrification equipment, Philippe and Scott. And as also, as Scott touched on this, some of the national security issues. So I'd like to touch on both of those, the energy security and the national security.

And Ukraine is the leading example of this. You have a campaign targeting civilian energy assets. And so for a company that helps make 30% of the world's energy. When kids can't turn the lights on and people can't do their jobs or access health care, we're going to take that very seriously. And so thanks to Maví and Philippe, we were able to deliver and operate the first aeroderivative turbine since the start of the war. It's spinning right now during the winter season, helping to provide power to 100,000 homes from basically think of the back of a truck trailer being able to be strategically moved around.

And then thanks to Philippe, we've been able to accelerate and prioritize the shipment of grid equipment, Electrification equipment so that for the first time in history, the Ukraine grid and the European grid could work together and have that back up. And every single one of our businesses meets every week to look at how we can help Ukraine build the grid back stronger than ever and be a big partner of choice.

But Jessica, we've really learned some lessons, not only for Ukraine, but some lessons we can take away for energy security, generally, some of the things that Scott Reese touched upon, whether cybersecurity, more extreme weather events that he mentioned or just the additional stresses on the grid he identified. The first is, in this world of energy security, we have to be fast and we have to be smart. We used to think of energy security as something maybe within years. And then we start to talk about seasons, the winter season, the hurricane season.

Now we think of it in terms of weeks. We're constantly scoping the world saying, where are the risks arising. What's happening. Where can we target our resources to jump in and help. And I think the real time of this is only going to grow with more intensity. That's why GridOS is so important. So we have to be fast, but we've also learned we have to be smart. One of the things Ukraine has taught us is we need a diversified set of energy generation equipment. We did an all of the above strategy. We can't prejudge winners and losers here. And for Vernova to have the most diversified energy portfolio in the world that puts us at a big advantage to help address these energy security issues.

The second thing we've learned goes to national security. And this was a wake-up call for me. I think it was a wake-up call for many of us. It certainly was for our government counterparts, which was we don't have this equipment sitting on shelves. It's not in some warehouse ready to be immediately shipped out. This is where demand greatly outstrips supply. And so what we're doing is now we're partnering with governments to think strategically in this kind of mindset, how do we build out the supply chains. How do we build out our factories. How can we prioritize this nimbleness so we can be able to respond to these threats in energy security issues in real time. So this has been a game-changing type of discussion.
So energy security is certainly accelerating the interest here. We're in a unique position given the diversity of our portfolio, our nimbleness and our scale to take this responsibility seriously and play a meaningful role in helping address these growing challenges.

Jessica R. Uhl GE Vernova - President

Great.

Roger J. Martella GE Vernova - Chief Sustainability Officer

So Jessica, I'd love to ask you a question. You mentioned joining us in January. And while that wasn't too long ago, I know in hours, it's been a lot because you've been working so hard. And we've certainly benefited in a short amount of time from the diversity of views that you've already brought to the table. So I'd love to hear in your initial kind of assessment, how do you see our innovation as a competitive advantage at GE Vernova?

Jessica R. Uhl GE Vernova - President

Great. Thank you. Thank you, Roger. And that is a very rich topic. And I think you've already heard a number of areas where you've seen some of the innovation and sources of competitive advantage for the company. I'll share a few that I'm seeing coming from the Research Center in particular, where I'm trying to spend more time and focus more of my energy as part of my portfolio. And there are core capabilities that this company has from a fundamental science perspective and a research perspective that I think are distinct and hugely important in terms of the future of energy.

And that's in areas such as material science, combustion and electricity, electrification more widely. All of those fields are hugely important in terms of the hardware that will be needed for the energy system. And those innovations are throughout our portfolio, whether it be our aeroderivative turbines to our blade manufacturing capability to the transformers that we're building. So our capacity to understand kind of the fundamentals of each of those products is allowing us to innovate to increase efficiency, to increase throughput, to increase reliability from a hardware perspective.

Equally, we have great capacity from a data management perspective, from an artificial intelligence perspective, which is increasingly important, one of the points that has already been raised today. And that's coming through and certainly the Electrification piece of our business, where to manage all of this complexity, the physics of electricity and making that work in a very dynamic way is, I think some of the more sophisticated issues of the energy transition from kind of a science perspective, and we have the experts who've been working on this for decades. And I think that it's just super exciting to be a part of that.

The last thing I'll say is if you put those two things together, hardware, kind of fundamental science piece along with the AI and the data piece, I think that's a very impactful combination in terms of our ability to understand how these things need to work together and to drive improved performance.

Dan Garceau GE Vernova - Chief Supply Chain Officer

Can I pile on a little bit here?

Jessica R. Uhl GE Vernova - President

Yes.

Dan Garceau GE Vernova - Chief Supply Chain Officer

Yes. So a couple of months here. So what are some other technologies, though, that you guys are developing?

Jessica R. Uhl GE Vernova - President

Great. So lots of different things I could touch on. The ones I'll emphasize now are around, again, the artificial intelligence, the robotics work and the impact that's having on our business, and that's having a -- these things have an impact. All of these technologies have impacts or the potential to have an impact, not only how we run the business today, but again, how we can shape the energy system of the future.
On the robotics side, some of the things we're doing are really helping us do maintenance in a safer way, in a faster way, which then is lower cost for us, which improves our margins, but importantly, improves the profile for our customers and results in our customers having more uptime for their assets. A specific example of that is recently completing some work at a hydro facility where we were able to use robotics and not have to dewater that facility allowed us to reduce the downtime by some 95%. That's a huge number for our customer, which then, of course, allows them to have that asset up and running, producing electrons, selling it to the grid, and having a better financial profile associated with that maintenance event.

Similarly, we're using AI and data throughout the business. Vic mentioned it in terms of -- or the video talked about it in terms of the blade quality work that we're doing. Again, we're doing that in our gas turbine business as well. We get thousands of millions of pieces of data. We're also getting millions of pieces of imagery. And we're using artificial intelligence to look at that imagery and be more proactive in our understanding in terms of how these assets are performing, which allows us to get ahead of the curve in terms of maintenance issues, do predictive maintenance. And again, that lowers the cost of maintenance, increases the throughput for those products, which is a win for our customers, it's a win for the company, ultimately a win for our shareholders as all of this can drive larger margins.

**Dan Garceau GE Vernova - Chief Supply Chain Officer**

Amazing. Yes.

**Jessica R. Uhl GE Vernova - President**

Yes. It is really cool. Good. So Dan, I'm going to come back to you. I think we've all become a bit more familiar about some of the challenges of our global supply chains through COVID and coming out of COVID. We all probably had our lives touched by some interruption from a supply chain somewhere in the world. Can you talk about how lean helps us manage our supply chain? And how we're using that as one of the solutions to the challenges around supply chain?

**Dan Garceau GE Vernova - Chief Supply Chain Officer**

Yes, definitely. See, I think the only constant in the supply chain is that it's constantly changing right now is -- we've kind of taken the approach, let's usually, let's control what we can control, which is our end-to-end supply chain, including our partners, our suppliers, our supply base. So we pulled them into lean and are partnering with them from a lean standpoint kind of looking at that whole end-to-end system that we have.

Example of this is -- we're getting started. We have about 2 years under our belt. We're working with over 20 suppliers now. But in the Gas component side, one of our growing businesses, we're working with one of our suppliers, and we've done a series of kaizens with them and really to address how we signal and how we forecast to the supply base. And then on their shop floor, how they can flow material faster and they've ended up installing about 19 lean production cells to support our business.

So we've improved our service levels from our -- from the suppliers, decreased operational costs, both within Vernova as well as the supply base. In this specific example, they reduced lead time by over 50%. And at the same time, we took about 50% of the inventory out of the system. So we have this stabilized fulfillment now. And really, this is servicing our Gas Power service business, as we've heard throughout the day, one of our biggest cash generators.

**Jessica R. Uhl GE Vernova - President**

Great. No, that's great to hear. There's so many pieces of the puzzle we need to bring together to deliver the energy transition and to drive electrification. And supply chain can be a competitive differentiator for a company. And it's great to see what you and the teams are doing.

Roger, back to you. You have been in the energy, climate sustainability space for, I think, 3 decades.

**Roger J. Martella GE Vernova - Chief Sustainability Officer**

About.
Jessica R. Uhl  GE Vernova - President

It doesn't show. It doesn't show. Sorry. When I look at you and I say that like 3 decades really, okay. And a lots happened. Can you give us kind of in your -- from your perspective with the vantage of that experience, vantage point of that experience. What's changed? Where are we today? And how would you characterize how things have changed?

Roger J. Martella  GE Vernova - Chief Sustainability Officer

It's interesting you made the comment about the 3 decades, which I appreciate. But for 28 of those years, I feel like we were -- I was doing important work, but not making any progress. The last 2 years have been just -- and we have more progress in the last 2 years than I've seen in 28, frankly. And I think what I would say is coming to work every day, GE Vernova, it's not just me, I think I speak for all of us in the room. You feel like you're in awe of history a little bit, that this is a special time.

I certainly feel like this is an unprecedented era, where after those first 28 years of my career, the last 2, we're seeing things take off, action in climate change, action in the energy transition, action that's been long overdue. And we really see the alignment of 3 tailwinds to this moment in time when we're becoming this purpose-built company, as Scott likes to say, where we have an unparalleled opportunity here to really seize these tailwinds and really help influence and deliver on this action.

And the first tailwind we see is just this fundamental realignment in the last 18, 24 months or so between the public sector and the private sector. I think it'd be fair to say for a long time, when it came to climate change and the energy transition, the private sector and the public sector more disagreed than they agreed. The private sector thought that this was an innovation and technology play. We want innovation and technology, the public sector wanted to use regulations and sticks. And I think to our credit, we've been proven right here a little bit. And I give a lot of credit to Jennifer Granholm who I think sets the right tone here when she says, the energy transition will be private sector-led enabled by the public sector. And this new relationship of the 2 over the last 18 months of partnership, collaboration, enabling each other has been a fundamental game changer. Vic talked about it, that first chart he showed with the influence of the Inflation Reduction Act and how that's driving Wind.

And we're seeing global analogs all around the world like that. Just in the last 48 hours, Congress released its budget package. And if you dig into the details, they're allocating $900 million to companies like GE Vernova to innovate the next generation of Gen 3+ small modular nuclear reactor technology. And one of the things I love is not just the money. One of the things I love about what they did, back to my point about being fast, Congress said DOE, you have 90 days to figure this out. We're putting the clock on you and we're going to make you accelerate this. Thank you for that. It's just as important as the money.

The second tailwind we're seeing is what we touched on earlier, the electrification imperative, energy security, I won't cover that again. But when we talk about energy security, we also want to talk about electrification. We want to talk about climate change. All of that gets us to the same place. And even if my phone is ringing more these days about energy security. And sometimes the caller ID is blocked because it's national security. It's getting us to the same place for climate change, for electrification, and this is just a catalyst that's been long overdue.

And the third tailwind that we're seeing that's really at the right place at the right time is this global space race for the energy transition. You have countries that were formally reluctant to commit to climate change commitments, now see that as an economic opportunity. The UAE is probably a great example of this from COP28. We partnered with the UAE to sign a memorandum of understanding to help innovate our small modular reactor, the BWRX in the Middle East for the first time.

Now if someone had told me even 12 months ago, we'd be partnering with the Middle East to innovate nuclear technology, with the blessing and the encouragement of the U.S. government, I might have been a bit skeptical, but this is how quickly this era of action is changing and the diversity of relationships where we can innovate more broadly is this really accelerating. You mentioned the 80 DOE. It's wonderful to have 80 DOE contracts. What if we can do that all around the world now and have that diversity of views and perspective. That's what's happening.
So I'll just end where I started. We certainly feel this awe of being in this moment of history. We know the stakes are high. It's a responsibility we take seriously. Scott talked about being this purpose-built company to electrify and decarbonize and with these tailwinds, I certainly feel the sense and I think our stakeholders agree that we're the right company in the right place and the right time to succeed for all of this.

Jessica R. Uhl GE Vernova - President
I wholeheartedly agree, Roger. Really well said. Thank you. Pablo, so our last question, and I think it's good to end on the customers. So can you talk a little bit about how we're engaging with our customers to help drive innovation?

Pablo Koziner GE Vernova - Chief Commercial Officer
Absolutely. And Roger, I love the way you said that. I wholeheartedly agree that I think we're the right company at the right time, and our customers are in the same position. We lead everything that we do with our customer viewpoint, with our input. So everything that we've been talking about today is aligned with helping our customers be more successful. So let's think about that. Our customers have to add power. They have to do it in a way that continues to decarbonize energy. They want to do it reliably. Uptime continues to be at paramount and at the forefront of everything that they do. They want to find new ways to be efficient, take more out of the energy that is being produced, and it has to be done in a cost-effective way.

We talked about our power to integrate. I think that's what sets us apart and really adds value to the customers because the future is all about integrating different technologies to reach our goals. And we do it with a culture of continuous improvement. I just can't stress how important that is. We are focused -- relentlessly focused as a company to continuously improve in areas of quality, safety, reliability. These things are paramount to our customers. We talked about energy security, cybersecurity, very, very important. Our innovation that happens every day at the Advanced Research Center. We do that in collaboration with our customers, with government entities, institutions. Everything that we do is really focused on making our customers successful.

I just want to end on thinking about the 80,000 employees that we have that are passionate about what they do every day. They come to work thinking that the customer trust has to be earned every day in every act and really as Philippe said it, the future really is electric.

Jessica R. Uhl GE Vernova - President
Excellent. Good. Good. And I can say that -- I'd like to think I've led my career from a purpose perspective. Coming into Vernova in last couple of months, I feel a sense of that purposeness in the employees and in the culture probably stronger than I've ever seen. So it's really exciting to be here.

Thank you all for what you have shared with everyone. Thank you again for being here. Hopefully, we've brought to life how we're thinking about innovation, how it's happening within Vernova, starting from research and development, fundamental science to how we think about our supply chain, how we think about how we operate, and then how we work with governments and with our customers and the market. We have a unique set of capabilities working with very sophisticated hardware, sophisticated software to understand pretty complex set of issues and offer the world genuine solutions to help electrify and decarbonize, create value for our customers, value for the world and ultimately, value for our shareholders. Thank you.

PRESENTATION
Operator
Please welcome to the stage GE Vernova CFO, Ken Parks.

Ken Parks GE Vernova - CFO
So you have to believe with me that this is an incredible company, an incredible journey and an incredible opportunity for all of our stakeholders. I think back over some of the things that we've all heard this morning, some simple but very powerful statements. Mavi said, power keeps the lights on. It's key. Vic, we need wind. The world needs wind, very simple statement, but it's a part of this future. Scott Reese talked about software that leads the energy transition and then how can we forget Philippe. Our future is electric. So I mean, this is all really coming together nicely.
I think as I get started this morning, let's just kind of stop and think back at what have we heard today? What have we heard? We've heard incredibly solid and growing markets. But at the same time, you're hearing about a company that's consistently talking about a lean operating model. This is how we execute. It's not about just moving with the markets. It's about operating in a market very well, but then executing everything we do at a level that we think is pretty unique.

So with that, let's start to talk through our financial strategy. It all begins with disciplined revenue growth, and that's been a theme throughout the morning. What do I mean by that practically? It's solid underwriting and solid pricing on equipment sales. On top of that, it is continuing to grow our services portfolio, which, by the way, is almost half of our revenues today in total Vernova.

This, combined with our cost-out actions as well as our ongoing productivity initiatives will drive EBITDA margin expansion and additional free cash flow generation. That's important because it will also help us to enable maintaining a strong investment-grade balance sheet, allowing us to fund innovation and to strategically allocate capital to grow the business going forward. This strategy is solidly in place, and it drives our decisions every single day. It's happening because we're transforming the business, and the business is transforming, as you can see, based upon the results that you see on the chart.

In 2023, we actually achieved profitability for the group of businesses that are coming together as Vernova. We also generated positive free cash flow. Both of those numbers were better than the guide that we gave a year ago at Investor Day. But it doesn't stop there because achieving profitability and generating cash isn't the end of the road map. We expect that momentum to continue into 2024, looking at $34 billion to $35 billion of revenue, again, with a disciplined revenue approach, the high end of mid-single-digit EBITDA margins and free cash flow that takes a measurable step up to $700 million to $1.1 billion.

Now you can see on the chart, there's another set of bars. This continues again, and we're expecting again in 2025 another step-up in this business. We'll see mid-single-digit revenue growth. We'll see EBITDA margin step up again to the low-end of high single-digits, and we'll see another step-up in free cash flow to between $1.2 billion and $1.8 billion.

We feel confident around this outlook, especially on the EBITDA margin expansion and the EBITDA growth because the levers that drive that are levers that are in our control, and we'll talk about that. Let's talk about that for just a minute. As we move from margins of around 2% in 2023 to the high end of mid-single-digits in 2024. Look at the variables on the page. The price cost ratio is positive, a lot of that led by our Onshore Wind business, that's in our control. That is an outcome of the transformation that Vic and team have been driving.

Power and Electrification volume growth provides accretive profitability. Why do we feel good about that? As you've heard through the morning, our most of that revenue in 2024 is going to come from orders that we already have in backlog. We know what the pricing is on that -- on those orders, on that backlog.

In addition, we can't overstate the work that we're doing on lean. So between productivity, restructuring initiatives, those are going to continue to deliver benefits to the bottom line and grow our EBITDA margins and EBITDA dollars for Vernova. And then finally, and we'll talk about this a little bit more in a few slides, our cost-out initiatives will start to provide bottom line savings, not just in later years, but that will start in 2024. So because of all this, we feel confident in our road map that we have set ahead not only for 2024, but as we move into 2025 and later years.

The good news is, it's not just coming from one place. It's coming from all 3 segments. Power's margin expansion is led by Gas Power with strong services and productivity. In Wind, you heard us say that we're expecting Wind as a business to approach profitability in 2024, and then to achieve profitability in 2025. How is that kind of going to come? You see Onshore Wind benefiting from cost reductions, improved quality and then pricing benefits, delivering margin expansion in 2024.

And then on the Offshore Wind business, we talked a little bit about that backlog that we're continuing to manage out. And as we manage that Offshore Wind backlog out and deliver to customers, we're applying those same principles and we're delivering it with better product costs. So the combination of those two things will move us closer to profitability in Wind in 2024, and move us into
Then in the Electrification business, our fastest-growing business, we'll expand margins from price, productivity and then the drop-through on that low double-digit volume growth. It's coming from across the portfolio.

I'll take a minute to talk about services because services are a significant part of our business, at about 2/3 of our total backlog. And if you look at the numbers, about 5x our 2023 service revenue. That business -- that portion of our business generates reliable and growing cash flow. As Mavi discussed, Gas Power makes up most of our services backlog, and that will continue to grow as we deliver more HAs and get them installed in the field.

The Onshore and Electrification business, while smaller in services today, that smaller portion of their business is profitable and growing, and that provides a good opportunity for future profitability growth and incremental free cash flow generation for Vernova.

Our objective simply in the services side of the portfolio is to continue to grow that every single year, delivering incremental EBITDA, expanding our margins, and growing our cash flow. And at the same time, we grow closer to our customers, and we become much more connected with every service contract.

Now improving our cost structure is also a key to the road map. You remember there was a block on that EBITDA walk that had cost out. And a bunch of that cost out is going to come from our G&A cost reduction initiatives.

And how are we doing it? We're doing it with the same tools that we're driving productivity through the factories. We're driving it with lean initiatives. We can apply lean in the businesses. Cliff and I have known each other for a long time. And when I was at a previous company, he used to push us on seeing Lean not only in the production base, but also in our enabling functions and that's exactly what we're doing here.

So we're looking at how do we do the work that we do to support the business even better, even more efficiently, and being more effective. And we're applying the same tools, value stream mapping, kaizen events, and taking work out.

We've already started to do some things, and this may sound very simple, but I'll tell you, it's a big deal. We're already starting to take out legal entities. When you think about creating a company like Vernova, $33 billion of revenue spread across the world and pulling that out of a bigger business called GE, that comes along with a lot of legal structure that was there to support cash movement and tax optimization.

We're bringing those entities over because we have to have them on day 1. But I can tell you, we don't have to have all of those going forward. We can figure out how to reduce those. Why is that important? Every single legal entity we have, we have to staff, we have to audit, we have to report on. We have to keep in place, and we have to do that every single year. So you can call it few hundred thousand dollars for every single entity that we manage on an annual basis. As we reduce those, it takes out structure. It allows us to do things faster, and it also opens up the opportunity for us to take more initiative in other places to increase efficiency and reduce our cost in areas such as tax and treasury as we're moving things around the world.

So that's an important thing that's happening. It will bring, it is bringing value to the bottom line today. It's not only in that area. We have many things to look at. One of the big areas is in our IT network and our IT structure. We're already looking at how do we take all these systems that haven't been connected, they have spoken to each other, but they haven't been as connected as we want them to be, bring them together and bring out cost but improve efficiency, allowing us to go to less points to get data. So we spend less time trying to get data and more time analyzing data so we can support the businesses even better and getting -- looking around corners and getting to conclusions.

Through all of this work, and there will be a long list of things that we can do, we're anticipating to reduce about $500 million of G&A costs by 2028. I say by 2028 because we have a really good road map, and we have a lot of people working on it, and I can tell you that we are all working very hard to move that needle to the left and deliver that cost savings even sooner.
So all of this operational execution has driven our free cash flow inflection, which you've heard us talk about. We said that last year. We said this was where we're going to inflect free cash flows. You can see that that's happened in 2023. Again, it hasn't stopped. It's going to continue. This work and the productivity work and the increase in profitability of the businesses will continue to increase free cash flow.

Where is it going to come from? It's pretty simple. It's pretty straightforward. It's higher EBITDA. Now on that higher EBITDA, we will pay a bit more taxes. As we earn more money, we have the obligation to pay taxes. But there's also another big lever that we'll talk about for a minute, and that's working capital management.

Even in a growing business, which naturally requires more working capital, we have tools and ability to turn that working capital from being on the balance sheet to becoming cash even quicker. And so we're going to talk about that in a minute, but that is a big opportunity for continued free cash flow growth.

Now it's important to say, as we're generating cash flow on the left, those cash flow numbers include a couple of very important things that are built into them. One is we have CapEx to support the business. You heard a backlog that's growing. Specifically, you heard some backlog growth in the Electrification side of our business, in that segment. That's going to require a little bit of capacity expansion. We have the money in there to do that. That's there. And it's going to run probably for the next few years at an amount equivalent to depreciation and amortization, call that somewhere between $700 million and $900 million a year. That is a part of our outlook.

Secondly, we're investing about $1 billion in R&D. Scott said that in the early part of the meeting. We anticipate we will continue to invest that. When we find things like carbon capture and direct air carbon reductions, we will invest in that to make sure that we are staying ahead on the sustainability curve. So that money is in there, plus the R&D investment that it takes to support the business going forward and create that innovation for future years. So all of that is within our outlook.

Now let's talk about working capital for just a minute. It is an opportunity. It is an opportunity in almost every business to continue to look at working capital. On the lefthand side of the page, we have -- there's a really good example of how we've used some lean tools to truly turn working capital balances into cash. What you see is on the lefthand side of the page, an example from the Gas Power services business where the team came together and looked at how do all this information come together once technicians are in a service environment to bring that together to turn it into a billing to get it out to the customer to collect cash.

All that work that took to kind of pull all that information to turn it into a billing, the team standardized much of that work. Some of it, as Maví said, is now digital. Turn that in, reduced an overall 20,000 hours out of that process on an annual basis and in reducing that time, turned it to do billing more quickly, and we pulled in $250 million of cash faster than we would have under the old process. That's one example. That example can be replicated in other places. And the team's working kaizen events, that Dan was talking about, can find many of these opportunities.

It is a culture. Lean is a culture. And that culture isn't just in the factories. It's in the teams that we and the enabling functions drive as well. So there's opportunity there.

The work that we've done on what we call the order-to-cash collection cycle, in 2023, reduced our days sales outstanding, call that the speed that we collect receivables, by 7 days between 2022 and 2023. That's about $90 million for every day that we reduce. And you can do the math, these are big numbers, right. And there's more opportunity, we're not done.

So while we're still doing good work and not done there, we do have a bucket of opportunity on the righthand side of this page in the inventory work. You can see our inventory balance is growing, you would say, okay, well, your business is growing, so your inventory balance is growing a little bit. What I'd show you is I broke this into 2 pieces because what you can see, the lighter blue bar, which is finished goods, that bar is shrinking a bit as we move through this growth period. We're getting things out of the door faster once they get to the end of the production process.

The blue bar is a bar that's highlighted because we talk about finding the red things. Scott answered the question in the Q&A session
about we're looking for the things that provide more value that we can focus on better, that we have the opportunity and the more we can break the data down, we can find those things. We have an opportunity in the raw material and components area. Let's not bring those things in too fast. Let's not pay for them too early. Let's do them much more lean, so that way, we're bringing our inventory balance down and we're managing our cash and generating more cash flow. We have people working on this around the world as well. So working capital continues to be an opportunity.

Free cash flow will be driven by higher earnings. It will also be driven by working capital management. And every day of inventory that we reduce will bring us about $60 million and I try to throw those numbers out and talk to the teams about them because it becomes much more tangible as to what we can do.

Now with that, when we spin out of Vernova -- when we spin out of GE and become Vernova, we will be an investment-grade company with over $4 billion in net cash, significant liquidity and positive and growing free cash flow. Maintaining that investment-grade balance sheet is going to be a fundamental priority for us. It's important to us. It's important to our customers as they contract big jobs with us. But from there, we're also going to focus in the near term on organic investments.

So there's multiple pillars in capital allocation. You can think about organic investments, you can think about returning cash to shareholders through dividends and/or share repurchases, and you can also think about M&A. What I would tell you, as we spin out and as we're continuing to grow our cash flow to the levels where we think it should be, in the near term, we'll probably be more heavily focused on the organic investments. Not saying we're not going to do any other things, but what I will tell you, when the right time comes, I won't even say if, but when the right time comes, we'll take the opportunity to look at how and what we do to return a portion of that cash to shareholders. So the stronger we make that cash, the more we have the ability to take that lever out of our portfolio and execute on that.

And we will, as we've talked about, continue to execute on M&A type initiatives. There are going to be things where we benefit and bring in technology, we apply technology. We help somebody to grow something, we may help to scale up. I would tell you, I don't anticipate big, big M&A activity in the near term, but M&A is a part of the path and it is a part of what helps us to innovate and we support the innovation of others.

Now as I wrap up, I would say, as we look further out, we expect the results to continue to strengthen not just in '24 and '25 and that's because we expect these healthy sector fundamentals to continue. And also because this lean operating model is something that really is never done. So the constant application of both of those things provides a good solid growth for us to continue to expand.

So what do we see? On the revenue growth side by 2028, we see mid-single-digit kind of annual CAGR, compound annual growth rate, and that's going to come from disciplined equipment growth on this rising demand as well as continued service growth.

We expect by 2028 to be at about 10% EBITDA margins, at 10% EBITDA margins, on positive price/volume, continuing benefits from productivity and lean, and the execution of that G&A cost-out road map that we spent a few minutes on.

And then finally, on free cash flow conversion, every year may be a little bit different. But over time, we're expecting to generate free cash flow conversion between 90% and 110% of net income. The smallest word on this page is the most important word, “by” 2028. So we're not saying 2028. We're staying by 2028. When you hear all the good things that are happening by this team and in this business, we are going to commit to 2028, but I can guarantee you, we are going to be working very hard to move that left.

I'll wrap up where Scott started. We're operating in attractive markets and solid execution. And the combination of those things put Vernova in a position to deliver significant profit and free cash flow growth for the years ahead.

We, as a team, are excited about the opportunity to electrify and decarbonize the world and at the same time, deliver significant value creation for shareholders.

I appreciate your time this morning. I'm going to call Michael up, and we're going to have another Q&A session here with you.
QUESTIONS AND ANSWERS

Michael Lapides GE Vernova - VP of IR

Hi. Welcome back for our second Q&A session. We have Scott, we have Ken who just wrapped up, Philippe, and Scott Reese.

(Operator Instructions)

Michael Lapides GE Vernova - VP of IR

With that, we have someone in the very far back right over there. Thank you.

Robert Cameron Wertheimer Melius Research LLC - Founding Partner, Director of Research & Research Analyst

Rob Wertheimer, Melius Research. Questions for Scott Reese. Could you just give a bit of a description of the ecosystem of software in grid and electrification stage of development? Are there natural spots where an OS means it ought to be kind of a unit solution, not a monopoly, but you know what I mean, like a primary core? Are there dozens or hundreds of different software entities within the ecosystem?

Scott Reese GE Vernova - CEO of Electrification Software

Yes. So we really love the notion of grid orchestration because to us, it explains the evolution of what really needs to happen in the grid. We've had good assets from a software perspective for decades, and they've played critical roles in helping utilities operate the grid. We're taking those assets, and there are many of them, and leveraging the best of the technologies, moving them to the cloud that will ultimately make up this grid orchestration platform that we've launched.

We're also doing some M&A around it to accelerate things. Recently, you saw in August of last year, we acquired a company called Greenbird technologies. That's because that was a massive accelerant to a key part of grid orchestration, which is bringing the data together from all elements of a utility, giving the utilities for the first time visibility across the grid. So there'll be a lot of different parts that come together as we build it out. I don't know if that got to the heart of the question.

Scott L. Strazik GE Vernova - CEO

It's really the uniqueness of software for us because the reality is when you look at our market map and our competitive landscape, in a lot of Vernova, you have 1 or 2 big competitors. And inside software, what we've learned, my 2 years, having the Digital business inside GE, we had many applications that were somewhat duplicative. In some cases, we had let this thing get too big and wide. We prioritized. But then in the same vein, when we look at the market at large, there's an immense number of technologies that customers are evaluating. They don't talk to each other.

And that's where, for us, grid orchestration of bringing this thing together is uniquely positioning us to serve the market. And Scott mentioned Greenbird, there was another small acquisition we did which is Opus One, which is a DERMS software. These are small deals. They don't make the headline of The Wall Street Journal and are not going to. They're really technologies we're acquiring more than businesses, but then we bolt on to GridOS and use our customer reach in a way that we can accelerate how those technologies serve the market much more efficiently than these technologies can on their own. And that's a big, exciting part of what Grid Software is for us.

Michael Lapides GE Vernova - VP of IR

Next question. We'll go to Mark Strouse.

Mark Wesley Strouse JPMorgan Chase & Co, Research Division - Alternative Energy and Applied & Emerging Technologies Analyst

So dating back to the Form 10 filing, I've got a lot of positive feedback from investors on the way that you're breaking out the Electrification segment now. I think folks are trying to get a grasp of kind of what that business can look like over time. You look at some of the electrification peers that are out there publicly traded, the EBITDA margins that they might have, let's say, high teens, low 20s. Do you think that that's possible for your business maybe within this kind of by 2028 framework? And can you talk about kind of the tailwinds and headwinds to kind of get something like that?
Scott L. Strazik GE Vernova - CEO
Philippe, do you want to start with that?

Philippe Piron GE Vernova - CEO of Electrification Systems
Well, first of all, we went from a business which was not really profitable to something which, in 2023, managed to reach the high end on low single-digit. Our guidance is mid-single-digit. But I'm very confident about the fundamentals of the business to go further and to go really rapidly further.

After -- the universe of electrification players could be a little bit different, depending on the level of automation robotics you've got compared to the grid, particularly, that could change a little bit as well as the multiple. Here, we are still in a business where we have this Power-to-X, but still the grid, which is quite dominant.

Typically, we have 2 or 3 players in front of us, where we definitely take the challenge to overtake them in terms of profitability level. That will be a challenge, but it's possible.

Scott L. Strazik GE Vernova - CEO
You look at the market map that Philippe framed up and the $75 billion addressable market to $175 billion is the biggest single market growth factor we see inside Vernova in this period of time, okay? They are also the businesses that have been the most orphaned in some way, to be honest with you, inside GE company, whether that be some of the assets we acquired from Alstom, and they remained very European-centric. I would tell you, when I took on the Grid businesses 2 years ago and visited customers of ours that have intimate relationships with and talked about what we had in Grid, they didn't know. It just is just fundamental to our improvement.

Our Digital business was out in San Ramon, doing its own thing. This business is fully aligned with our purpose every day now to electrify and decarbonize the world and that focus is driving real improvement. So I would tell you from my lens, the art of the possible for what can come over this decade with Electrification has the widest upside case, but it's early. And we want to walk before we run, but I like our chances.

Michael Lapides GE Vernova - VP of IR
Got it. Next question right here in the front, please.

Marc Gregory Bianchi TD Cowen, Research Division - MD & Senior Energy Analyst
Marc Bianchi with TD Cowen. Ken, I've got a question for you on the net contract liability. It's approximately $6 billion, $7 billion, mostly in the Wind business. How much of that is a function of this $4 billion of backlog for Offshore? And where should we see that liability go over time? And how much does the cash balance kind of depend on that?

Ken Parks GE Vernova - CFO
So it won't -- there is a portion of it related to Offshore Wind. It is not all related to Offshore Wind. What I would tell you is that it will move around a little bit over time. I think if you look back, I know we've just shown you kind of 3 years in the Form 10, that number does move around some. But I would expect that to kind of continue as we're growing the business to be a measurable cash balance that's sitting there. It's hard to project at any point in time, but it will be a part of the working capital portfolio.

Michael Lapides GE Vernova - VP of IR
Got it. Next question. Let's go back to Joe Ritchie, please.

Joseph Alfred Ritchie Goldman Sachs Group, Inc., Research Division - VP & Lead Multi-Industry Analyst
Scott, you touched on both of my questions actually to some degree, but I want you to elaborate on your right to win in the U.S. because historically, especially in the Electrification side, you have been predominantly Europe-centric. And maybe you've already started to see some of those wins and the backlog growing. Your doubling last year. So any comments around that would be helpful.

And then to the other, Scott, or maybe you can answer this question as well, as you're thinking about the Software business scaling, and
the context that you're giving us mid-single-digit EBITDA margins, it just seems like if you're able to scale this business to $1 billion, that should be super margin accretive to the Electrification business as well.

Scott L. Strazik GE Vernova - CEO

No question. So it's early in the U.S. broadly for Electrification, okay? The areas where we're gaining more traction more quickly is in Grid Software. Scott's ability to gain leverage with the larger utility customers that are really starting to shift from work they would historically depend on their organic teams to do and now coming to us and saying, "It's becoming too complicated", real opportunity. With Philippe, parts of the business that are really moving is the modernization of the aging infrastructure, think transformers, think switch gears. But that's basic grid enhancements much more than, as an example, the HVDC growth as an example that we're seeing in Europe contributed to a lot of his backlog growth, very European-centric. TenneT, National Grid he mentioned. There hasn't been a deal of that magnitude in the U.S. yet, it's to come.

It's going to have to because for us to get to what the U.S. needs, whether it be onshore HVDC projects or offshore, there's a healthy pipeline, but there's not quite as high a conviction case in the U.S. for that to move at the pace that we've seen stuff move in Europe, somewhat driven by Ukraine and the energy security initiative.

So for me, where we are in the U.S. broadly across both of their businesses, it is early, but this is our home field. These are where we have our most intimate customer relationships. And the practical reality in many cases is our greatest home field with some of our greatest customers never fully appreciated how we could serve them. It's the most authentic example of how Vernova as a purpose-built company gains leverage across the businesses together. It's early with a lot to follow.

Philippe Piron GE Vernova - CEO of Electrification Systems

If I may add some points. We are probably having a deficit of recognition, but we have some strong position in the U.S. as well on the Grid Solution we have. We take 2 examples, Grid Automation. We're #2 and #2 worldwide and quite strong as well in the U.S. market. Transformers through our participation, because we're in joint venture Prolec GE, we are #1 in the U.S., but it is not totally known. We are going -- it's part of the strategy to push aggressively or break through on the U.S. market by pushing commercially in terms of footprint in order to really gain and rebalance the center of gravity that will be less European, but European and North America.

Scott L. Strazik GE Vernova - CEO

Yes. Very well. Scott, anything?

Scott Reese GE Vernova - CEO of Electrification Software

Yes, on the point around profitability, without any question, that's one of the things we all love about software is the profitability that it brings along with it. Getting -- we've worked really hard over the last 2 years to get back to basics, focus in on energy, deliver standardized software and earn a profit. We're there. That's the start line, not the finish line, right?

So we are going to continue to drive both growth and profitability. And ultimately, one of the things that you all have educated me on over the last 2 decades is this Rule of 40. That's really what we're in pursuit of, to make sure that our growth and our profitability, when you add them together, is over 40%. And there will be some balance between growth and profitability between those 2. But without any question, we're just getting started.

Michael Lapides GE Vernova - VP of IR

And he deserves a little -- his team deserves a little bit of a congrats because of the -- one of the major consulting firms designated your DERMS software as the best in the market. So I don't know if that's filtered its way out, but it's a public document there. Congrats.

Next question, Stephen. Stephen in the second row up here in the blue jacket.
Stephen Calder Byrd, Morgan Stanley, Research Division - MD and Head of North American Research for the Power & Utilities and Clean Energy

Stephen Byrd, Morgan Stanley. I just want to say thank you for a great presentation today. AI has come up a lot throughout the course of the morning. What use cases are you most excited about that can, in the long term, really drive the bottom line? There are so many different applications at GE Vernova, I'm trying to think about sort of what are the biggest areas of upside.

Scott L. Strazik, GE Vernova - CEO

I'm going to start, and then I may hand it to you, Scott, if I can. But at the start, again, part of it's just the power gen demand that's coming. Philippe has scope within data centers generally with the electrification of things. You've got to think about the huge installed base we have in power generation at large and how do we service that installed base with another level of sophistication on a go-forward basis, including using AI.

And then there's many use cases on Grid Software and where we're going, that I'd love to hand to Scott.

Scott Reese, GE Vernova - CEO of Electrification Software

Yes, I'll give you just a pedestrian one and then we'll get a little bit more complicated. But when our hurricane's come in, we tend to have a snapshot of the vegetation around a utilities grid. We're able to leverage AI to recognize the foliage and therefore, we can determine the growth rate and be able to tell them, "Hey, here are a few places that we think you should probably get out in the next 2.5 days before the hurricane hits and trim the vegetation to prevent an outage." Because what happens is the tree gets overgrown, the wind blows, knocks down the tree, it takes the line with it.

So in the last hurricane, Hurricane Ida I think it was, we were able to contact the local utility and say, "Here are 19 places that our AI says, "You might want to get somebody out there to trim them." And we prevented 19 outages as a result of that. So that's a reasonably pedestrian example, but it's a real impactful example.

Beyond that, just being able to predict and see all of the demand and availability elements that utilities are just having to navigate today and being able to better educate them and ultimately just orchestrate that on their behalf, AI plays a massive role in being able to do that.

But it all starts with data. If you don't have the data in a way that you can see across the entire landscape, AI doesn't stand a chance. That's why we did the Greenbird acquisition. We expedited, we just launched it last week at DISTRIBUTECH down in Orlando, The GridOS Data Fabric. It's the first of its kind, enabling utilities to see across the entire grid at once.

Scott L. Strazik, GE Vernova - CEO

And, Stephen, just 1 last comparison point to this. I've grown up in the Gas business the last 10 years. And we're looking at upgrades of the fleet, where we're trying to drive slight efficiency improvements in gas turbines that we can then quantify the OpEx savings for our customers. But it's hard. I mean the material sciences of what we're doing is tough for that extra dollar. And for me, what I've learned in the last 2 years of having these Electrification businesses is the OpEx that our customers spend on things like forests, like the lines and the transmission and dealing with that is massive. And frankly, it's easier often to take on savings there than it is the next efficiency upgrade with gas. And it's what gives me so much confidence that there's a lot that we can do to serve our customers in this space.

Michael Lapides, GE Vernova - VP of IR

Go to the next question. There's someone in the back right over here.

Jack Hurley, Mizuho - Equity Analyst

Jack Hurley with Mizuho. You talked about how 2024 pricing and margins are mostly locked in, in existing contracts. I'm wondering if you could tell me how you think about margins locked in for '25, '26 and where we could possibly see some surprise there.
Ken Parks GE Vernova - CFO

Yes. So at the overall level, what we've said is that about 80% of our revenue in 2024 is locked in through current backlog. That number is about 50% in 2025. And as we move through this year, obviously, we would expect that to move back up. But it kind of runs in those levels.

Scott L. Strazik GE Vernova - CEO

But when you think about the profit of our services, which is even more of the backlog, right? 2/3 services, 1/3 equipment, and that's more profitable. Then if we have visibility to half of our revenue already for next year, it means even a larger proportion of our profit is already secured in that high-margin services backlog.

Michael Lapides GE Vernova - VP of IR

Got it. Next questions. Cliff, we'll come back to you.

Clifford F. Ransom Ransom Research, Inc. - Founder & President

Cliff Ransom, Ransom Research. The history of GE is a history of innovation. But in the past, the organization, I won't say often, but frequently enough to make us skeptical, never quite got around to commercializing it or making it profitable. As you look at innovation today, how has this lean culture that you're building impacted what you go after? And why wouldn't that be a perfect application for Hoshin Kanri? For that matter, why have I not heard that -- those words or policy deployment even once today.

Scott L. Strazik GE Vernova - CEO

Well, Cliff, you have. We just have been more using it in the vein of when I talk about protecting first space and oxygen of the teams for the breakthroughs, that's what we're talking to. We haven't used the Hoshin descriptor. But at the end of the day, the way we're running the company today is with a lean operating model with a focus on the critical customer KPIs, but then also with a disciplined approach on Hoshin within the policy framework for the long-term breakthroughs.

And for me, this is probably the most powerful part of our operating model today that I would tell you is a real gift I feel like we've received as a company from Larry over the last 5 years. Ambition has never been our challenge inside GE to be abundantly clear. The challenge has been focus and to complement a distinction between the near-term improvements we must make for our customers while protecting for those long-term breakthroughs and not smothering them before they can come to be. And our business teams are getting better at that. Gas Power's farthest along, but there's a long way to go. And that counterbalance between near-term improvements and what the customers care most about, while having the discipline to then break that and find a different room, a different audience, and a different leadership style to nurture the long-term breakthroughs in the vein of Hoshin, that's where the magic really comes from. And that's what we're developing, but it's early inside GE Vernova and there's a lot to follow.

Michael Lapides GE Vernova - VP of IR

Next question, please. Right up here, row 5.

Vladimir Benjamin Bystricky Citigroup Inc. Exchange Research - Research Analyst

Vlad Bystricky from Citigroup. A lot of focus on innovation, obviously, and there was talk around SMRs, which obviously still very early days on SMRs. But I wanted to ask you, as you think about developing and growing the SMR business over time, how do you think about the risk of big cost headwinds or overruns on some of the early projects and how -- what you can do to avoid some of the expensive lessons that you're experiencing in Offshore Wind?

Scott L. Strazik GE Vernova - CEO

Appreciate the question. And this is a big part of Mavi's role every day and what she's leading. But if I speak for her in a moment -- for a moment on this, I would just reinforce that we're also launching the first projects, in which our customers that we're delivering those projects, are our partners. They're investing in the NPI with us. So this is very much a codeveloped solution. And that's not just in the engineering and the technology, but it's also in the risk sharing on how we're launching this product.

So we like very much the commercial structure in which our launch customers in multiple countries in the world are our partners
simultaneously. That probability weights our chance of keeping this on the highway in the middle of the highway substantially.

Now we're not building multiple variants of this. We are building one small modular reactor going back to the workhorse mentality for the world. That is going to drive us down the learning curve. And that's the only way we're building this product. It's what the world needs across our portfolio is our ability to industrialize things at scale, and that's what we stand for as a company with SMR, but really in the same way for Wind and many other parts of the portfolio. Thank you.

Michael Lapides GE Vernova - VP of IR
Got it. Next question, over here.

Deepa Venkateswaran Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst
Deepa Venkateswaran from Bernstein. I'm quite surprised that we haven't discussed the Inflation Reduction Act or the risks. So particularly for the Onshore Wind business in the U.S., could you talk about what you see as the risks in case there's a change in administration and they do manage or what your odds are of maybe repealing the IRA? And what is your -- I guess, your fallback plan in case there's any risk to the IRA.

Scott L. Strazik GE Vernova - CEO
You bet. And I'll hit on it. I mean I don't think, by no means, we're trying to predict elections around here, but I can tell you that we're actively engaging with both sides of the aisle in the U.S. A lot of the dialogue in those conversations come back to this: jobs, innovation, U.S. competitiveness, energy security. And those generally are agreed upon by both sides of the aisle.

You look at what we're doing in Pensacola, Florida right now, where we've invested $50 million to expand the capacity of our nacelle facility in Pensacola, hiring a number of Navy veterans to ramp up our Onshore Wind business from the naval base nearby, we get support across the aisle for that. And there are a lot of investments in that vein across wind that are supported by most.

So those priorities are really what we're positioned in the company to serve, irrespective of administration, irrespective of policy that we believe is foundational to onshore wind becoming the technology that generates 25% of the world's electricity, and not 7%.

What you see in our financials today, though, to be clear, is we've showed you a fairly flat revenue profile for Wind. So we're driving to a much more profitable business with better underwriting, a better mix because of that and substantial cost out. The real upside case with Wind is when we get that volume leverage over the medium, long term from things like the IRA that's not really baked in the near-term financials that we've framed up today.

Michael Lapides GE Vernova - VP of IR
With that, we have time for one last question. We have one far in the back. Sorry, can't see behind the beam here.

Mustafa Okur Bloomberg Intelligence - Research Analyst
I'll try to talk around the pillar. Mustafa Okur from Bloomberg Intelligence. I just wanted to ask about your software strategy. GridOS, a very interesting video with Alabama Power and the savings. Do you have like a hardware-agnostic approach for your software? Does the software work better with GE hardware? Is it all of the above? Could you give us some color around that, please?

Scott Reese GE Vernova - CEO of Electrification Software
Yes, our customers’ environments are very much a heterogeneous environment. So we work with all hardware providers. One of the things you have to love about Vernova, bringing these 12 businesses together as one company, though, is that we do have the ability to integrate in ways that really advantage the customer in a lot of ways.

So Philippe and my team partner very, very closely on the things that matter the most for the customers. Similarly to Mavi's business, our software monitors over 3,000 of the gas turbines that we have in production in real time. So we're able to continuously improve how our hardware and software interoperate and help one another, be better for the customer. But we are hardware agnostic with our software solutions.
Everyone, I really appreciate you all being here and giving us this time this morning. I also want to thank my team, both my team that is in the room with us today, but really who we’re representing is the 80,000 employees that work with us every day, living this mission to electrify and decarbonize the world.

When people ask me what I’m most proud of as it relates to GE Vernova, that’s always a very simple answer. It is the people. It's the people that have chosen to remain part of this company over the last many years and launch GE Vernova with us. It's the people that have chosen to change their lives in the last 2 years and come to GE Vernova to make this company a reality.

What we do and the work that we do matters to the world. I hope that came across very clearly to you today through myself, through our team on behalf of our 80,000 employees.

Now if we go to the next page, the energy transition is going to be transformative. Industries will electrify. As that happens, it pushes the pressure and the opportunity for the electric power system to provide more electricity in a decarbonized way, and GE Vernova is right at the center of that.

Top lefthand corner. Think about the market fundamentals. There's always going to be an element with electricity with public-private partnerships. No question, policy matters. Part of why we talked about things today, like artificial intelligence and data centers or the electrification of industry is because those things are happening regardless.

Top righthand corner, we are playing this game to win. We are investing $1 billion a year in R&D. I mentioned the 80 DOE grants that we're actively working today. Jessica talked a lot about our Advanced Research Center. And we're doing that in partnership with our customers.

Bottom righthand corner, just multiple examples. BP Teesside with carbon capture in the U.K., Ontario Power Generation launching a new nuclear product. Philippe mentioned our Prolec JV in the U.S., which is the #1 provider of transformers in the U.S. And all of this is happening in a period of time in which massive capital is going into the energy transition, is going into energy transition startups.

But what are those start-ups going to be challenged with? Industrializing their products at scale, customer reach, 2 of our greatest strengths in which we are going to play an active role, partnering with this ecosystem and making those things a reality.

Now, as we bring everything to a close, we are excited about these markets. We see incredible opportunities to serve the world through GE Vernova. Our Power businesses are great businesses, with big installed bases, primarily services, generating a lot of cash and will generate more cash for a long time, while we simultaneously decarbonize them.

Wind matters for the world. It has been a tough prior chapter for the industry. But we have a clear pathway of running these businesses better. You can see the proof points already in Onshore Wind. We've got our arms around Offshore Wind towards a path towards wind in total for us being profitable in ’25, an important enabler for the energy transition in total.

Our Electrification business is reaching a tipping point of accelerated profitability. It is clearly the business of the 3 with the highest r to the possible upside as we invest and lean into this market and run these businesses better, with an incredible amount of ambition and optimism, starting with me and the entire team.

All of these things come back to foundational principles of what we're doing to lead in sustainability, to innovate for the future with a lean operating system at our core. We're uniquely positioned to serve this market.

And I want to really end where I started, which is this is a big day for us, but it's a big day for us because it's the beginning. This team is ready to play our part in leading the energy transition. We have a high degree of confidence with our financials today and our ability to create substantial value through GE Vernova tomorrow.
Thank you for giving us the morning, and I look forward to this being the first of many conversations together.